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**Original**

## GALL STONES FROM A MEDICAL STANDPOINT.\*

BY JOSEPH EICHBERG, M. D., CINCINNATI, OHIO.

Mr. President and Gentlemen of the Obstretrical Society of Cincinnati—A large part of the interest connected with the subject of gall stones from a medical standpoint has to do with the etiology. The work of Charcot has cleared up much that was uncertain in this direction. It was found that gall stones occurred more frequently in women, and chiefly during the sexual life of women, from the 20th to the 55th year. The predisposition to the formation of gall stones was traced largely to the function of gestation and lactation, in which there is a physiological tendency to the accumulation of fat at a time when the woman is likely to take little physical exercise. It was probably for the same reason they were found to occur in persons who in early life suffered from acute articular rheumatism, the accompany-

ing valvular lesion neforcing a quiet life. This would keep them from the more vigorous movements later on. The formation of gall stones was found also to be more frequent in the victims of lithemia. Obesity seemed to be a predisposing cause. Here again there was a lack of exercise and an over-indulgence, particularly in the amylaceous products. The bile retains its solution largely by reason of its strong alkalinity. In making post-mortem examinations, when gall stones have accidentally been found, it has been ascertained that the alkalinity of the bile was almost invariably reduced, and frequently it was neutral, or even feebly acid in its reaction. The principal ingredient of gall-stones we know is cholesterin, which probably forms 90 per cent. of the total ingredients of biliary calculi. It was supposed for a time that the gall-stones were formed in consequence of an excess of cholesterin in the bile, but

\*Read before the Cincinnati Obstretrical Society, March 19, 1896.

now it has been shown from the contents of gall bladders taken from post-mortem tables, as well as the analyses of bile from fistulae, that the proportion of cholesterin remained the same in cholelithiasis as in normal bile. Now some experimenters would find the cause in the secretion of a thick and viscid mucus, which forms the nucleus of the gall stone. Support to this theory is lent by the fact that if a gall stone is divided by a fine saw it is found to be formed of three layers, the inner layer being composed of a thickened, crystalline substance, or else an opening, as if the stone had been formed around a hole. I think there is little doubt at the present time in the minds of those who have investigated this subject, that the excess of mucus in the bile would act like a foreign body in any saturated saline solution or as the thread in the syrup in making rock candy, giving a nucleus about which the crystallization of dissolved substances can take place.

The diagnostic points in connection with biliary calculi have been brought out to some extent in the papers we have heard this evening. Special stress has been laid on the absence of jaundice, and rightly so, as well as on the exceptional location of the pain. I would call attention to a sign of some importance. In cases which have come under my own notice it was always possible within twelve hours after the occurrence of an attack, to find some trace of bile coloring matter in the urine. It is supposed the colic is caused, not by the stone in the gall bladder, but by the stone being in the duct. Its location in this particular spot gives rise to temporary obstruction. This, coupled with muscular contraction of the gall bladder, forces some bile into the lymphatics, and thereby causes the appearance in the urine within twelve hours of a sufficient quantity of bile coloring matter to be recognized by a careful examination. I would agree with most of the gentlemen who have presented papers this evening that the diagnosis of gall stones is not made sufficiently often. Pains,

which are often ascribed to other causes, are frequently traceable to gall stone. The hepatic, intermittent fever, it has been claimed, never appears unless there is an inflammation at the same time of the bile ducts extending up into the substance of the liver, as well as affecting the larger ducts themselves. Cases have occurred in which, on post-mortem examination, the liver has been found the seat of disturbance, where the diagnosis was missed during life owing to the marked fever. It often would lead to elevations of temperature, 103, 104 or 105 degrees. Taking into account of the sex of the patient, the condition of obesity, sedentary habits, excesses, particularly in the direction of starchy or saccharine foods, and an inherited tendency to gout, or a previous rheumatism, the pain should not leave us long in doubt. It is important the diagnosis should be made early in these cases, because in many instances it is possible by purely medical treatment to overcome the difficulty.

The medical treatment of cholelithiasis resolves itself into the medical treatment of the attack and the medical treatment of the interval. I wish to emphasize the importance of this feature, because the cases usually come under the care of the physician primarily, and because most of these cases do not present distinct tumors unless there be a decided obstruction in the common duct. An obstruction of the cystic duct blocks the channel in both ways and converts the duct into a cyst. Therefore the early recognition of the true nature of the cause is of the very greatest importance. The treatment of an attack resolves itself largely into a treatment of the pain, for which there is nothing better, of course, than morphia. The old-fashioned formula of turpentine and ether derives its therapeutic principle from the ether, which serves as a diffusible stimulant, and not as a solvent of the calculus. But in the intervals of the attacks much can be accomplished by general measures. By diminishing the concentration of the

bile, we lessen just by so much the tendency to deposit some of its solid ingredients. This can be accomplished easily by alkaline mineral waters, which not only increase secretion, but also maintain the alkalinity of the fluid, and thereby lessen the chances of precipitation. Each country is partial to its own alkaline spring, but perhaps there has been no water which has attained a greater reputation than the Carlsbad spring, in Bohemia. In the neighborhood of this city I think there is a water, the French Lick Springs, which can accomplish just as much as the Carlsbad water. A strict regulation of the diet is a matter of very great importance, a regulation both as to quantity and quality. As has been noted in the history of the cases reported this evening, the most prominent symptoms are gastric in character; nausea and distress after taking food, a vague pain in the stomach. By giving the stomach rest between meals and not overloading the stomach with food it cannot master, we place the liver in a better position. The starchy foods should, if possible, be prohibited entirely. I have in mind a case of hepatic colic, occurring in a young woman after her first pregnancy, who, according to direction, abstained entirely from starchy food for one year, during which time she took horseback riding, frequent hot baths and mineral water. She has not had an attack since. It is true the cholesterolin found in the bile is not obtained entirely from the starch or fatty foods, being formed from organic compounds as well. But if we overload the stomach with starch and fat, we favor the development of a fatty infiltration of the liver, with consequent functional impairment of its cells, and alteration of the biliary secretion. Proper exercise is to be associated with dietary restriction. The relief of the condition on which the formation of gall stones depends can thus usually be accomplished. As to the solution of the stones already formed, we cannot promise so much. As to the solution of the stones Atao posed for this purpose. But we met

with the same difficulties here that we do in the urinary bladder. Because solvents will dispose of concretions in test tubes, it does not follow that a test solution will accomplish the same purpose in the economy. The mixture of ether and turpentine was first given for this purpose, but this has long since been given up as being of comparatively little value. The salicylate of soda does more to produce a chologogue effect and assist in the dissolving of small stones; dose, 30 to 35 grains daily. The stones probably under increased biliary pressure are forced out. The use of olive oil, which has been largely recommended, particularly in the South, and the ingestion of which in large quantity has been supposed to result in the passage of biliary concretions, is not sanctioned by practice at the present time. The quantities taken are enormous, and usually prove nauseating. The masses passed are simply the more insoluble fatty principles of the oil, which pass through the intestinal canal.

There is another point to which I would like to direct attention from a medical standpoint. I am inclined to believe gall stones after the 50th or 55th year are probably more frequently associated with malignant diseases than has hitherto been recognized, and I believe they are associated with malignant disease in more or less of a causal relation. An autopsy I saw at the City Hospital is strongly confirmatory of this fact. A patient died of carcinoma. The hepatic and common ducts were free and patulous and the patient had had stools of normal color all his life. The gall bladder was completely occluded and converted into a cyst about the size of a hen's egg, containing a perfectly clear fluid. The cystic duct was obstructed by a calculus, and around this calculus there had formed a malignant growth, which extended from the cystic duct to the substance of the liver, and gave rise to a secondary enlargement there about the size of an orange. Gall stones early in life probably do not produce such a result, but in gall stones after the 50th year I think an operation is more necessary than in

earlier years because of the danger of a carinoma developing from irritation of the calculus. It is wonderful how much biliary colic may exist and suddenly all of the symptoms entirely disappear. I believe this is usually due to an ulceration whereby the stone finds its way into the small intestine and allows a free passage of the bile, so that all the symptoms, including the jaundice, are no longer present. I remember two cases of jaundice, present in one case three years, in another eighteen months, when, after some fever and considerable pain, the jaundice permanently disappeared and the condition of the patients improved very materially.

There is one other condition I would like to call attention to, and that is the care of the intense, almost intolerable, itching of the skin. Many cases complain of nothing so much as of this intense cutaneous itching, which disturbs their rest by night and gives them no peace by day. An old treatment is the administration of calomel in one-half grain doses for six or eight days, the doses repeated every two hours, so the patient takes six grains of calomel in the day. It rarely results in salivation, frequently causes the passage of greenish stools, and promotes more rapid evacuation of bile. This treatment has been lately revived and very excellent results are claimed for it, especially by German observers.



VASCULAR MOBILITY AND STASIS, INTERRUPTION, ARREST  
AND RESTORATION OF THE SANGUINOUS WAVE, PHYS-  
IOLOGICAL AND PATHOLOGICAL

BY THOMAS H. MANLEY, M. D., NEW YORK.

(Continued from last number.)

POSITIVE AND NEGATIVE PRES-  
SURE AS A HEMOSTATIC  
AGENT IN HEMORRHAGE.

The essence of about all our mechanical agencies for the control of the bleeding is pressure, applied in a great diversity of ways. The simplest and most effective is digital, which, when applied deliberately by a skilled hand, may be depended on to control a leak from any of the larger vessels, as well as the smaller ones, outside of the trunk, or the cranial cavity. It can be maintained, however, but a few moments, when the hand becomes fatigued.

This description of pressure in degree is of two kinds: viz., positive and negative. The former is imperative for arteries and the latter for veins.

For any of the arteries of less calibre than the radial, except those of the palmar or plantar arches, we may succeed by digital pressure in an open wound, to arrest the hemorrhage. Under ordinary circumstances, nevertheless, rather than take chance on secondary hemorrhage, it will be safer to immediately ligate.

This description of pressure, during the act of operating, is the surgeon's sheet-anchor.

With a full and well-assorted equipment of instruments and an ample corps of well-trained assistants standing around him, the operator needs to give but little thought to hemorrhage; but the greater number of operations are performed by general practitioners, many of whom are called on to operate without any methodical surgical training. This is especially true of emergency traumatism, etc. And, again, the

most expert may be called into the country to operate at short notice, where, perchance, he finds, on his arrival, but one assistant, with an indifferent nurse. Under these circumstances one must make the best of it and proceed with the case.

Pressure suffices alone in nearly all small, superficial incisions, through the skin and the superficial fascia; in most situations, until we penetrate the muscular planes or pierce the dense fascias. We may proceed with more celerity by clamping up anything that bleeds, though this is not indispensable.

The paramount value of positive digital pressure comes in when the scalpel divides a vessel of considerable magnitude, and one is unprepared for it, or a novice is at operating. The proximal end of the vessel in an instant sends a jet of blood up into the operator's face or over his head, across the room. At this critical juncture the inexperienced is apt to become "rattled," and clutches blindly at everything with clamps, but the mouth of the vessel is now drawn up and hidden in an atmosphere of loose connective-tissue. Right here the work of subduing such a hemorrhage should occupy but a second or two. Keep well in mind the anatomy of the parts and the occasional anomalies. The tendency of the divided vessel is to mount upward; press it farther up, still, and press it firmly against the osseous, or resisting surface, as a bone-shaft or a joint; gauze, sponge or any description of textile fabric in the hand.

With the wound firmly packed and jammed by the hand a moment's time is permitted for one to decide on the next step.

Theoretical and practical operative hemostases are, indeed, widely different. If a practitioner for the first time undertakes anything in the nature of a capital operation, no matter how ample may be his theoretical knowledge of technique, or elaborate his armamentarium of instruments, he will consult his own interests and those of his patients if he bring along a surgeon or a practitioner of some experience in surgery.

The importance of this injunction was well illustrated in a case related to me, not long ago, by one of our best-known surgeons.

A young practitioner of considerable promise, from out of town, came to him and requested his presence at an operation, stating that while he was not desirous of special assistance, the patient was somewhat apprehensive; and, besides, the presence of so well-known an operator would tend to enhance his prestige among the village neighbors.

After some hesitation and no little reluctance, considering his rather ambiguous position in the case, my friend consented, and a few days later went into the country to meet the doctor.

The case was one of mammary epithelioma. As there were three assistants the city visitor intended to simply stand by as a spectator and offer any suggestions requested.

After all necessary preparations were made the excision was begun, and everything went on auspiciously until the axilla was being approached, when a great gush of bright, arterial blood shot up, and in a moment everything was being deluged. In vain were clamps applied to everything likely to be an artery. Seeing that signs of dangerous collapse were settling in and prompt action must be taken, the surgeon seized the patient's arm, brought it quickly into a plane with same axis as the body, seized a wad of gauze and tamponned the wound. No more blood was lost. It was found that an unusually large, long thoracic artery had been divided.

Denonvilliers records a case of somewhat similar character, in which an operator lost his head, and,

thinking that he had wounded the axillary artery, ligated it above the tendon of the latissimus dorsi. The following day gangrene set in, and the patient sunk; when it was discovered that it was the sub-scapular artery which had been divided, the main vessel being untouched. Direct and positive digital pressure is a most potent means of damming back the arterial tide, in open wounds; but to be effective it requires a cool head, anatomical knowledge and something more than a theoretical notion of operative hemorrhage.

Our esteemed and aggressive contemporary, the Cincinnati Medical Journal, very properly takes to task the Philadelphia Polyclinic for a slander contained therein on the extra mural practitioner. "County Surgery," the Pennsylvania Journal, says, "is no surgery." This is, indeed, strong language, without a shadow of truth to support it; for many of our most brilliant and eminent surgeons were first grounded in the practice of surgery before they turned their faces towards the metropolitan centres, and in every State and Territory in this great continent of ours, no town or village of any importance is without one or more practitioners thoroughly capable of dealing with nearly any description of surgical operation. But the city brethren are jealous and apprehensive lest their suburban supplies be reduced or cut off; as they most certainly soon will be, when every village has its own local hospital and trained operators. The foundation of successful or safe operating is a mastery of hemorrhage. The text-books, while dealing with this subject in a sort of perfunctory manner, seem to deliberately pass over the vital, underlying principles for its attainment. Let the country surgeon then, by experimentation, study and clinical observation, first master this fundamental step in operative hemorrhage—direct, digital compression in open wounds—that he may repudiate the stigma cast upon him by his rival city brother, over-inflated by a sense of his own importance.

## THE MENTAL CONDITION IN HYPNOTISM.

BY EDWARD C MANN, M. D., NEW YORK.

Dr. D. Hack Tuke, in his address on this subject before the Medico-Psychological Association in London, February 21, 1883, said that he had tried to form a clear idea as to the cerebro-mental condition of hypnotized persons. The data upon which we have to form an opinion or construct a theory are:

1. The condition necessary to induce the state in question.

2. The objective symptoms of the hypnotized so far as we can observe them, and,

3. The subjective state experienced and described by himself (the hypnotized person), in those instances in which memory, more or less distinct, is retained of what has been present to the mind during the hypnotic condition.

1. As to the condition necessary to induce the hypnotic state.—Staring at a disk or some well-defined object is a very frequent method. Other methods are also effective. The monotonous sensory impressions produced by passes, by counting up to several hundred figures, by listening to the ticking of a watch, etc. We may throw ourselves into a hypnotic state in attempting to go to sleep. The principles common to the various modes of hypnotism are on the physical side, the stimulation, more or less prolonged, of a sensory nerve in close relation to the brain calculated to ultimately exhaust some portion of that organ, and on the mental side, the riveting the attention on one idea. Looking at an object is not essential, for a blind person may be hypnotized, and in susceptible persons the merely expecting to be hypnotized is sufficient to induce it, the expectation in this case involving the concentration of the attention to one point.

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\*I would define hypnotism as a morbidly profound sleep of the cortex of the brain while the basal ganglia remain unaffected and in their normal condition.

Mr. W. North, lecturer on physiology, at Westminster Hospital, thus describes his own feelings while hypnotized: "I have not the smallest doubt that at first I succeeded in abstracting myself, as it were, from surrounding circumstances. I had been reading very hard for days past on the subject of intestinal digestion in relation to the bacteria produced, and I pictured to myself the interior of the intestine and its contents; then I tried to picture a special form of bacteria, and while I was engaged in contemplating its changes of form I seemed to lose all consciousness of persons around me." On a subsequent trial being made he looked at his boot, and thus described the process: "I ultimately succeeded in fixing my attention on six points of light reflected upon my boot and having some minute resemblance in position to the constellation Orion. After looking fixedly at this for what seemed to me a very long time, the idea of the constellation vanished, and its place was taken by the outline of the lower part of the face of a friend. All I could see was his beard and mouth and part of his nose and one cheek, the rest was cut off by a broad black area; the details were tolerably vivid."

The voluntary surrender of the will—the subject placing himself passively in the hands of the operator, is also an important factor in nearly all the processes. It is the initial step to the subsequent abandonment of the will of the subject to that of another. M. Richet, of the Salpetriere, has shown that the subject may be surprised and even rendered cataleptic the moment his attention is in the least arrested. He is seized and, as it were, instantaneously petrified, whatever efforts he makes to resist the influence. M. Richet constantly produces hypnotism by throwing a brilliant electric light upon the face of persons not

expecting it, or by striking a gong which had been concealed. An hysterical or neurotic subject has been transformed into a statue by a blow on the concealed gong at the Salpetriere.

2. The Objective Symptoms of the Hypnotized.—These vary with the stage or type. Charcot, Richet, Tamburini and Sepelli recognize three fundamental types, the cataleptic, the lethargic and the somnambulistic. In the first the limbs retain the positions in which they were placed for a considerable time and without effort; in the second (the lethargic) the muscles which are relaxed are found to have the remarkable property of contracting in a most definite way under gentle mechanical application; in the third (the somnambulistic) the state of the subject answers much more to what is understood as the so-called magnetic or mesmeric sleep. Contraction of the limbs can be produced, but they are of a different character from those in the cataleptic form, or the excitability of the muscles in the lethargic state.

Pupils.—The pupils exhibit strabismus and contraction and afterward are widely dilated and sluggish, an indication of the functional activity of the medulla, as regards the sympathetic as well as the respiratory centre.

Cerebral Circulation.—Ophthalmoscopic examination by Professor Forster of Heidenhain's patient showed that there was no contraction of the vessel as Heidenhain expected to find, as his theory had been that anemia caused the sleep. That hyperemia of the brain is not inconsistent with hypnotism was proved by hypnotizing a gentleman (Heidenhain's brother), who had inhaled nitrate of amyl. The respiration and pulsation are quickened at first. Professor Tamburini used the pneumograph, and he found the frequency of respiration to be doubled at first and the inspiratory pause suppressed. These tracings are useful in detecting simulation. With the cataleptic subject the tracing is uniform in character from beginning to end. With the simulator, on the

contrary, it is composed of two distinct parts. At the beginning respiration is regular and normal; in the second stage, that which corresponds to the indications of muscular fatigue, irregularity in the rhythm occurs with deep and rapid depressions, manifest indications of the disturbance of the respiration caused by the effort to simulate. Professor Tamburini made careful pulse tracings also. The rise in the pulse is 100 per cent. The myograph, the pneumograph and the sphygmograph are most valuable means placed at our disposal by modern invention for obtaining trustworthy records of the objective symptoms of hypnotism. There is heightened reflex action. The tendon reflexes may be normal or exaggerated. Richet states that in the lethargic type they are much exaggerated, in the cataleptic type they are diminished, and in the somnambulistic type normal. There is galvanic reaction.

3. Subjective Symptoms Described.—Sensation of pain is deadened or suspended. Anesthesia is produced. Mr. North said that a pin plunged into his hand nearly up to its head felt as if a match or some blunt instrument were pressing against his hand. When he was roused it hurt him considerably to withdraw the pin. The special senses are interfered with or abolished. They may be either heightened or abolished in different cases. Sight is partially affected. The subject sees, though confusedly, that which is immediately around him, but has a very vague or no perception at all of what is beyond this range. Some subjects describe a play of colors before the eyes. Hearing is not affected. Taste is suspended. There may be no unconsciousness whatever in some instances, and the subject may appear like other people. A certain susceptibility to impressions on the mental side and to rigidity of the limbs on the physical side may be all that marks the state of the subject. Is it that the cerebral cortex is just sufficiently weakened in function to have lost its supremacy without

parting with its more secondary offices?

**Volition.**—There is no spontaneity in hypnotized persons. Volition is suspended.

**Extreme Susceptibility to Outside Suggestions.**—The subject hypnotized is without any will power, and at the mercy of any suggestions, however absurd. Hallucinations are easily induced. A person may eat heartily while hypnotized and their visceral sensations will not suffice to inform them, so that they will wish for the next regular meal as if they had not eaten. Richet, of France, says: "The somnambulist has a perfect memory, a very lively intelligence and an imagination which constructs the most complex hallucination." The great fact in mesmeric sleep is that will and consciousness are suspended and the brain placed in the condition of the true spinal or reflex system. There is a reduction to a mere automatic condition. Heidenhain holds that the cause of the phenomena of hypnotism lies in the inhibition of the activity of the ganglion cells of the cerebral cortex by prolonged stimulation of the sensory nerves of the face, or the auditory or optic nerve. A sensory nerve may certainly inhibit the brain centres and this inhibition is the starting point of hypnotism.

**Conclusions.**—1. There may be consciousness during the state of hypnotism, and it may pass rapidly or slowly into complete unconsciousness as in the somnambulistic state, the manifestations not being dependent upon the presence or absence of consciousness, which is merely an epiphenomenon.

2. Voluntary control over thought and action is suspended.

3. The reflex action, therefore, of the cerebral cortex to suggestions from without, so long as any channel of communication is open, comes in play.

4. While the consciousness is retained the perception of the reflex or automatic cerebral action conveys the impression that there are two egos.

5. Some of the mental functions, as memory, may be exalted, and there may be vivid hallucinations and delusions.

6. Unconscious reflex mimicry may be the only mental phenomena present, the subject copying minutely everything said or done by the person with whom he is en rapport.

7. Impressions from without may be blocked at different points in the encephalon, according to the areas affected and the completeness with which they are hypnotized; thus an impression or suggestion may take the round of the basal ganglia only, or may pass to the cortex and, having reached the cortex, may excite ideation and reflex muscular actions, with or without consciousness, and wholly independent of the will.

8. There may be in different states of hypnotism exaltation or depression of sensation and the special senses. There is a peculiar abnormal mental condition presented in hypnotism, closely allied to mental disease, and full of interest to students of mental science. The subject has been scientifically studied by James Braid, of Manchester, in 1843; Esdaile, in India, in 1846; Girard Teulon and Demarquay, in 1860; Richet, in 1875; Charcot, in 1878, and in or about 1880 by the late Dr. George M. Beard, Drs. Weinholt, Preyer, Berger, Grutzner and Heidenhain and Dr. H. Charleton Bastian. We may fail at first with a subject and after a few trials he may make an excellent subject for experimentation. Bastian says that persons who have been once hypnotized can in general be again brought with comparative ease into the same condition, and the facility of hypnotizing such persons goes on increasing after each operation, owing to the existence of a predisposing mental state. A condition of excited expectancy is a decidedly favoring mental state.

The simplest condition necessary to induce the hypnotic or trance-like condition is to make the subject look fixedly for a few seconds at a bright object held by the operator at about eight to fifteen inches above

the eyes, at such a distance above the forehead as may be necessary to produce the greatest possible strain upon the eyes and eyelids and enable the patient to maintain a steady, fixed stare at the object. We must tell the subject to keep his eyes steadily fixed on this object and his mind riveted upon the image of it. In some persons, after 15 or 20 seconds, we shall find a decided cataleptic state induced, so that the limbs have the tendency to remain in the position in which we place them, and if not we may gently re-

quest the patient to keep his limbs in the position in which we have placed them. The pulse now quickens and the limbs shortly become rigid. By prolonging this process we induce a profound sleep, or trance, in which there is complete anesthesia. Esdaile, in India, performed numerous operations on Hindoos with absence of all pain while hypnotized. The therapeutic value of hypnotism has never yet been thoroughly tested, and the future may develop facts of much interest and value.

<p><b>COCAINE</b></p> <p>C.P. ANHYDROUS CRYSTALS.</p> <p>STANDARD OF PURITY THE WORLD OVER.</p>		<p><b>MURIATE</b></p> <p>BOEHRINGER-B.&amp;S.</p> <p>DISPENSED BY ALL DRUGGISTS</p>
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## Editorial

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### OUTLOOK FOR THORACIC SURGERY.

Marvelous, indeed, has been the progress of surgery in the treatment of various lesions of the viscera in the cavities during the past thirty years. This has been specially conspicuous in the treatment of pathological conditions occupying the abdominal cavity, both intra and extra-peritoneal. In fact, it can be scarcely said that, exclusive of the great vascular organs, there are any in the intra-abdominal areas beyond surgical exploration.

When we come to the other two great cavities, however, the case is vastly different, for the thoracic and cranial, in a large measure, defy the intrusion of the surgeon, except on their periphery, with either safety or success.

Horsely, Keen and others have led us to entertain great hopes for the future of intra-cranial surgery, yet, with the exception of conditions resulting from injury, we have been

able to accomplish little in surgery of the brain.

Within the thoracic walls are lodged two organs, of all others the most vital to life; the lungs and heart, and of all others, the most commonly the seat of diverse pathological conditions. Besides, within the chest walls are two large spaces extending between the pulmonary organs from before backwards.

The posterior of these is of the greatest practical interest, inasmuch as through this, course the terminal divisions of the trachea, the esophagus and the aorta.

Within this area is most frequently lodged malignant disease of the gullet and interstitial suppuration of the mediastinal glands, and when impaction of the bronchi occur from the lodgment of foreign bodies, it may be with the greatest precision displaced. Since Dieulafoy invented

his aspirator every description of serous accumulation is now pumped out of the pleural-cavity, which were formerly left to disappear by the slower processes of resorption. Eminent surgeons in various places have endeavored to bring the treatment of many pathological conditions of the thorax within the domain of legitimate surgery. Notable among these are Drs. McFadden Gaston, of Atlanta, Ga.; Bryant, of New York; Stokes, of Dublin, and De Lorme, of Paris.

Our distinguished Southern conferee, Dr. Gaston, has given this subject special attention and opened up a new field, though we fear that his final experience will be like that of many who have engaged in it before him.

His practical work on the thorax, with his "trap-door" incision, like Bryant's and De Lorme's, was on the cadaver, as it appears, that on the living body he dare not yet venture it. The successful treatment of any grave lesion within the chest wall—except by drainage in purulent effusions—is, in the present state of surgical science, little more than a dream. There are many formidable barriers in the way which we cannot overcome, do what we will. Surface division of the integuments over the chest walls is attended, as a rule, with great shock. The territories are highly vascular, many of the vessels concealed in grooves in bones, are difficult of access or ligation.

In cases of chronic empyema, tubercle is commonly present. Besides, what remains of the pulmonary tissue is crowded up against the clavicle into a small, compact mass, so that when the pus is drained away an enormous hollow cavity re-

mains. Esterlander endeavored to overcome this difficulty by resecting the costal arches, even allowing the chest walls to fall in and obliterate the dead space. This, however, has only partially succeeded, and besides, leaves a most pronounced deformity in any event.

Kendall Franks has successfully tapped the pericardium for hydrops, and Emmerich has sutured the wounded myocardium.

But let it not be inferred from the above rather pessimistic view of thoracic surgery, that very much progress in it has not been and is being made, but rather that it has its limitations, and that no one should undertake it without a full knowledge of the peculiarities of this region, with the anatomical and physiologic composition and action of the parts involved. Exact and precise diagnosis is the key to the situation. Too much or ill-timed operating on the thorax is worse than none at all. One instance came to our knowledge some time ago of a surgeon in the West who was paid five thousand dollars for opening an abscess. The patient was a wealthy merchant, who had for months suffered from obscure thoracic pain.

From one great authority he went to another, but no two were of the same opinion. One would have it that he had an aneurism, another a cancer, another carries of the spine, etc. But a free incision into the fourth intercostal space allowed issue of a gangrenous stinking mass of lung tissue. With iodoform, tampon and irrigation healing was prompt.

In this instance, as the dashing young surgeon will put it, "he did not charge this trifling fee for any operation, but for the diagnosis."

#### THE CONSCIENCE-STRICKEN MEDICAL NEWS.

From the very beginning of all this clamor about "nostrums" in Bellevue Hospital, although the "Medical Times and Register" has deplored the condition of things which permits the exploiting of secret remedies in public hospitals

or elsewhere and was the first to take the field in defense of legitimate medicine when this innovation was introduced, still it has some slight regard for fair play and consistency.

But why this everlasting pound-

ing at the Commissioners of Charities, whom the Medical News, the organ of the Medical Board of Bellevue Hospital, sneers at as composed of furniture makers, harness manufacturers and haberdashers; why persist in propagating and perpetuating the unfounded charge and slander that they are in collusion with the "stock company" and deriving profit therefrom, while not a scintilla of proof of these allegations is wanting? It is true that all of the Charity Commissioners are business men, and no doubt some of them in early life did work as apprentices or as grocers.

This fling is as unwarranted as it is contemptible and is unworthy of our distinguished contemporary, the News.

The Commissioners have neither swelled heads nor have they forgotten that "the duties of their offices do not involve the exploiting of secret cures for drinking."

It is true that many of the Bellevue patients are "poor and ignorant," on whom this new remedy is being tested, and of the same crowd that this Medical Board has been experimenting on, since the old City Almshouse was transformed into a hospital.

The Medical News has indeed our heartfelt commiseration in its agonizing throes of sympathy for the outraged Medical Board, but how about its attitude toward this Medical Board one year ago, when it resolved itself into a band of pirates and plunderers, when through strategy and shadowy tactics it dup-

ed the Commissioners into committing an outrage on New York medical men unparalleled in the medical history of the city, a villainous scheme, condemned in unmeasured terms by all the other leading journals of this country?

No! the News is on the wrong scent, it has the "sow by the wrong ear" in this nostrum matter, for the Medical Board of Bellevue, and not the Commissioners, are entirely responsible. As the Medical and Surgical Bulletin have it, "they held up others and now they are being held up themselves." A united, dignified protest by a body of medical gentlemen, for whom the "big-headed" Commissioners have the sincerest regard, would have long since put an end to the affair.

Dr. Oppenheimer, who has the work of testing the drink cure in hand, is no quack, but a physician who stands high in the community where he resides, a regular practitioner, doing in the hospital, under every safeguard, what must be done with all our most valued remedies until their merits are fully tested.

The attitude of the Commissioners in this whole transaction is fully set forth in the manly letter of Commissioner James R. O'Bierne, lately published in full in the Journal of the American Medical Association. From that it will be gathered that neither he nor his confreres will be swerved from their course of duty by menace or Billingsgate, however loud or clamorous.

P. S. We now learn that the "cure" has been driven out. Now let the Commissioners turn their attention to the medical board.



## Book Reviews.

**Twentieth Century Practice.** An International Encyclopedia of Modern Medical Science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York city. In twenty volumes. Volume VIII. "Diseases of the Digestive Organs." New York: William Wood & Co., 1896.

It is announced by the publishers that this volume, as was the case with volume 6, comes out in advance of volume 7, but practically no one will regret the delay of the latter which hurries forward a volume on diseases of the digestive organs.

This volume opens with a chapter on the diseases of the mouth by Mikulicz and Kummel, in which all the diseases which may occur therein are minutely detailed.

Diseases of the Oesophagus by Professor R. H. Fitz, of Boston, follows. It is necessarily short yet practical, there being comparatively few diseases in this region.

Max Einhorn treats of diseases of the stomach, going into the minute details of diet, functions, examina-

tions and neuroses, with treatment both medical and electrical. This chapter would make an excellent treatise of the subject by itself.

Diseases of the pancreas by H. Lee, of Bonn, is the next chapter in order, but occupies only a small portion of the book.

Diseases of the peritoneum, by B. F. Curtis, of New York, is a chapter of considerable importance, inasmuch as the treatment of these diseases have undergone a change in the past few years. Dr. Curtis goes into the special forms of peritonitis including appendicitis and perforations of intestine from various causes.

Animal parasites forms the subject for a chapter by J. C. Huber, of Bavaria, which is exhaustive, but the treatment of the diseases caused by these parasites is left for J. M. French, of Cincinnati, to discuss in the closing chapters of the work. This volume forms probably the best work on diseases of the digestive tract which has been placed on the market of late years, and is, perhaps, the best volume of the series so far published.

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### BOOKS AND PAMPHLETS RECEIVED.

**The Practice of Pharmacy as a Liberal Profession,** by F. E. Stewart, M. D., Ph. G., Detroit, Mich. Chicago: American Medical Association Press, 1896.

**Management and Treatment of Tuberculosis in the Asheville Cli-**

**mate with Report of Cases,** by James A. Burroughs, M. D., Asheville, N. C.

**"Aeroporotomy," etc., etc.,** by S. W. Kelley, M. D., Cleveland, O.

**Some Aspects of Ureteritis in Women,** by Edward Reynolds, M. D., Boston.



## ZINC-AMALGAM CATAPHORESIS IN MUCO-PURULENT INFLAMMATION AND MALIGNANT GROWTHS.

BY G. BETTON MASSEY, M. D., PHILADELPHIA.

In spite of having written two papers on the use of zinc-amalgam cataphoresis during the past year\* which were read before medical bodies of less specialized character than the present meeting, I feel that the practical importance of this subject is so great as to demand a place in the present programme. After the labors of Gautier, of France, and of three fellows of this association, Drs. Goelet, Morton and Cleaves, I cannot say that there is anything absolutely new in the methods about to be described, except the use of mercury as the cataphoretic metal, and possibly the mode of its application to malignant growths. Yet some important things in scientific art have been but synthetic combinations of the ideas and labors of others, yielding results that had possibly been previously attained in part, though not appreciated.

Zinc-mercuric cataphoretic applications are, I believe, such an important modification of the galvanocaustic method as to supersede all other forms of employing the positive pole of the galvanic current in muco-purulent and hemorrhagic endometritis. Were it not that the brittleness of zinc illy adapts it as an electrode for small or tortuous cavities there would be no further use for costly platinum electrodes in the treatment of these conditions, for I have cured a number of cases with the amalgamated electrode that had been only slowly improving under the use of platinum and carbon instruments, and can see no disad-

vantage in the mercurial diffusion even in cases where it is not absolutely indicated. In my present choice of instruments for hemorrhagic and purulent endometritis I therefore invariably employ the amalgamated electrode in cases that are sufficiently patulous for its easy insertion, using either stiff curved platinum electrode or the spiral platinum electrode for non-patulous or contracted canals.

Parenthetically it should be stated that there are cases of mere catarrh of course in which we do not wish true cauterization of the endometrium, but rather a trophic stimulation of the membrane and contraction of the parenchyma, and in these cases I prefer to cover the spiral electrode with a tight layer of absorbent cotton, like a narrow cotton swab, which is wetted and soaped for easy insertion. The cotton should be burnt off after use. This method, when it can be used, is a typical plan of treatment of the milder conditions and even of a pronounced metro-salpingitis, as it offers a minimum of traumatism to the cavity or to surrounding adhesions. The cotton, after withdrawal, moreover, offers a very accurate index of the condition of the cavity by the varying appearance of the discharges with which it is saturated.

Mechanically the amalgamated zinc electrode offers, in cases in which it can be used, greater ease of insertion than platinum, and espe-

\*Trans. Phila. County Med. Soc., '95;  
Jour. Am. Med. Asso., Aug. 24, 1895.

cially than an uncoated zinc or a carbon electrode, as the well-known oily sensation of a freely amalgamated surface indicates a condition of actual lubrication. This is possibly one explanation of a fact I have noted that its use in hemorrhagic cases is followed by less immediate flow than former methods and at times by none at all. On withdrawing the electrode also there will be found to be no true adhesion between it and the morbid surface if it has been freely coated with mercury, even when a strong current has been used, though a contracted uterus may make it fit tighter.

Clinical experience with this method in obstinate cases of hemorrhagic endometritis has made me think that there must be some special efficacy in the nascent mercuric salts thus conveyed to the affected tissues. That mercury administered internally has a so-called antiphlogistic action has been well known for years. In the light of our present knowledge of the true nature of subacute inflammations it may be possible that this antiphlogistic action is due in part to a stimulation of the phagocytes that have been developed more particularly in this class of inflammations from the fixed tissue cells of the inflamed part. By this destruction of the morbid germs and reinforcement of defensive agencies we may start a reparative effort resulting in a disappearance of the wandering cells of a parenchymatous or exudative inflammation and growth of the embryonal cells into fully equipped fixed tissue cells. It is, of course, not claimed that the only antiphlogistic action of mercury taken internally is the local one, for some of it must be due to regulation of the liver and other abdominal organs, but the effect of this intestinal dissemination of the agent by cataphoresis shows that the internal medication when effective must be partly local also.

If mercury taken by mouth may by vascular transference affect distant localities, how much more ef-

fective may not its local electric diffusion be?

Strong testimony of such efficacy is contained in the clinical histories of three cases reported by me to the Gynecological Section of the American Medical Association. In two of these cases a prolonged treatment with the platinum and carbon anode had failed to completely cure a hemorrhagic endometritis with attendant leucorrhoea and menorrhagia, though greatly benefiting them; on substituting an amalgamated zinc anode prompt and satisfactory cure followed. The third case reported was one in which a continuously dribbling hemorrhage had appeared after the menopause, the uterus presenting a tumorous enlargement. The persistence of the hemorrhage and pain, in spite of ordinary galvanic treatment, conspired with other clinical signs in suggesting malignancy, but in this case also a symptomatic cure resulted from the metallic treatment, which has continued to the present time. Several other cases presenting hemorrhagic features, with and without fibroid degeneration, have been treated since, with unvarying good results.

The application of this method to insipient cancerous growths would seem to be rationally indicated, for by it we may add to the tissue-killing properties of a concentrated anode the additional effects of nascent oxy-chlorid of mercury and zinc, thus obtaining all that there is in the caustic treatment of cancer, plus the electricity, and without the long-continued pain of caustics as ordinarily applied. The nascent caustic materials will also be carried into the tissues by the current, reaching the underlying ramifications of the cancer, particularly in those growths in which the cancerous structure is a better conductor than surrounding healthy tissues. To do this the monopolar method is of course essential, making it a distinctly different procedure from Inglis-Parsons plan of treating cancer, in which no special attempt is made to follow the cancerous ramifications by current diffusion.

For this method to successfully

replace the knife in the treatment of so grave a condition it must partake of some of the elements of rapidity that distinguish that method of rapid removal, for the knife is to-day almost universally resorted to in spite of the admissions of its most eminent practitioners that it does not cure, but often makes the final condition of the patient more deplorable. Heavy currents should be used to produce quick and far-reaching results. Up to the present time I have not exceeded 350 milliamperes in such monopolar applications on account of the pain, but it is my intention to make these applications under anesthetics more frequently in suitable cases in the future, cocaine administered cataphoretically at the time of application having done much to lessen the pain in several cases and bring such a current to bear on the diseased tissue as thoroughly changes its chemical and morphological character, conveying the effect to the remotest ramifications of the growth. To accomplish this successfully with a current pressure of not more than 156 volts and without damage to the healthy skin with which the other electrode is in contact we must make this indifferent electrode very large and a good conductor. A bath contact of most of the body surface would possibly answer well, but I have successfully employed a more convenient device, in which large wired-cotton pads of uniform thickness and moisture covered the greater part of the back, abdomen, hips and thighs, the patient

lying on those adjusted to the back and the several wires from each being carried to the negative binding post of the battery.

In this manner a chemical destruction and metallo-caustic impregnation of the diseased tissue of any extent may be employed, and though I have reason to believe that an active defense is aroused in the surrounding healthy tissues, which will do much to limit further extension of the disease, the application does not usually add to the patient's discomfort, but rather tends to lessen pain and other symptoms. In one case reported by me to the Philadelphia County Society, in which the cancer was situated in the groin, the central portion was gradually destroyed and ultimately replaced by healthy tissue, but unfortunately the growth involved the femoral artery, over which it lay, at which point no treatment was of avail. In another case in which the cancerous growth began in the left tonsil and, spreading to the soft and hard palates, was about to produce death from suffocation and inanition, the treatment was entirely successful, more than a year having now elapsed since a complete restoration of the normal integrity of the parts was attained.

If more than mere alleviation is demanded of this method the cases selected should be strictly local and unaccompanied by glandular infection, and unless very strong currents are to be used the method should not be employed in cancers of large extent.

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#### THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

Great interest is being manifested in the coming meeting of this national association of physicians on September 29 and 30, in Boston, and it

is expected a large and energetic session will be held on that date. Many papers are promised which give evidence of scientific enthusiasm. We trust all will attend who can.

## Current Medical Literature.

### A COMMON SENSE AND RATIONAL VIEW ON MICROBES, ENTITLED, THE SHIBBOLETH OF GERM THEORY. ITS DELUSIONS AND MISCHIEF.

BY K. N. BAHADHURJI, M. D.  
(Lond., Bombay.)

Let us now discuss the germ theory by the light of successful surgical and medical practice. It used to be fondly hoped and believed that the germs in the air were killed in the cloud of carbolic acid which surrounded operating hands and the wounds they made in the parts operated upon. It was also an article of faith that the dressings charged with germ poisons killed the germs as they filtered through the dressings, and that the mercurial and zinc lotions killed the germs on the spot. The spray cloud, which clouded the judgment of many a scientific researcher, because it was viewed through Lister's glasses, is now completely dispelled, and Lister himself has cried *peccavi*. It is equally a delusion to expect that the so-called antiseptics placed in wounds to guard the system against the germ inroad actually remain at their posts, for they are indeed changed and absorbed by the open surfaces. The zinc chloride placed in a wound does not do the sentry work of killing the germs as they alight on the open surface, which it is supposed to do, for it combines with the tissues which it chars, and is no more to be found at its post.

A sore will heal or fester according to the state of the tissues. Low vitality favors the analytical processes of disintegration carried on with the help of the germs, and it has been the practice to charge the open surfaces with germicidal and such-

like reagents, with a view to prevent the unhealthy tissues from offering a fitting soil for the work of the germs, till the union of wound is completed, at the same time that efforts are made to brace up the system generally, and along with it the part affected. And such surgical practice is based on the analogy of the action of corrosive sublimate against the activity of the little vermin that eat away the wood. It must be remembered, however, that the analogous mode of treatment cannot be carried out to any great extent. The corrosive sublimate will not corrode wood, but it will run holes in living tissues. There is no limit to its poisonous action on the wood, but there is a near limit to similar action on the animal system. Moreover, corrosive sublimate is "fixed" by the paint on the wood, but it is no such fixture in the living organism.

The "preserving" or "pickling" reagents or antiseptics, as they are called, have more extensive application in the museum than in clinical pathological specimens, which, unlike the museum curios, will not permit "pickling."

Is it due to antiseptic surgery that pyemia is banished, or nearly so, from hospitals and surgical practice? This is best answered by another question. Is it not a fact that the sanitation of hospitals, which led to the improving of the quality of the air and the quantity breathed, has led to the banishing of the putrefactive organic media in the atmosphere? And is it not that the old over-crowding and insanitary condition of hospitals and its attendant evils of decomposing organic effluvia, breeding germs and generating offensive gases and noxious prod-

ucts, are now things of the past? It is not with antiseptics that the bacteria have been chased away from hospital wards. The antiseptic zeal no doubt gave a strong incentive and stimulus to efficient sanitation. We know that the stifling and stuffy atmosphere of crowded districts is due to the decomposing organic effluvia on which the germs feed and multiply. Putrescible articles will readily undergo decomposition in crowded localities, and many are the diseases for which overcrowding is responsible, not because of the atmosphere being charged only in those districts with the several specific germs, but because of its quality as a blood purifier being much deteriorated. The fact that disintegration changes of phthisis or any other disease do not overtake even close neighbors—and the microbes cannot be guilty of partiality—proves at once that the cause or causes of such disintegration processes or disease lie a good way beyond the germs. As is well known, the bacillus of any one of the maladies for which overcrowding is to a great extent responsible, has not been discovered in any phase or condition in the atmosphere of the surroundings of the victims, in whose diseased tissues the specific bacillus is discovered and identified. Pyemia and septicemia have been well-nigh banished, because the hospital air filth of olden days, which bred the action of bacteria in the wounds, has been cleared away by sanitation. No pyemia case is cured by antiseptics. The surgeon quietly helps his patients to fight the bacteria with tonics, good food and stimulants. But why thus expose the poor patient in his desperate condition to fight the bacteria when indeed it would be so easy to kill the germs with so many germicides at the surgeon's disposal?

The drainage of wounds teaches the simple truth that wounds remain sweet, if no pus, i. e. dead or dying matter in which the germs flourish, is allowed to remain in them. The dog, when he licks his wound clean, gives no resting place to the bacillus, and does not need

to make any designs upon him with the help of antiseptics. Necrosis requires a thorough scraping, i. e. removal of tissue that is dead or about to die, to insure a healthy, healing action. Should any tissue about to die be, by any chance, left behind it will invite the germs much the same as a dying organism invites the flies and ants along with the bacteria and the bacilli; suppuration and putrefaction will set in, and healing will be put off.

Operations on the tongue are among the most severe ones, and yet, though by far the most difficult for the carrying out of antiseptic applications and safe-guarding with medicated wool wrappings, these operations are remarkably free from septic poisonings. The iodoform, which is dusted on the tongue, is by no means a germ killer and, moreover, is washed away not long after it is applied. No accumulation of exudation products is allowed and thus no chance is given them to run into pus.

Attention to strict antiseptic principles in surgical practice, when closely scrutinized, means nothing more than absolute cleanliness and often—what is an important factor in the building up of statistics of successful surgery—a selection of cases in which healthy physical conditions are assured, viz., conditions of healthy circulation and nutrition of the person and the parts operated upon.

And nothing demonstrates the truth of this proposition in such eloquent and incontrovertible a manner as does a successful ovariectomy. There is the scrubbing of the floor and the scrubbing of the walls of the operation room, with perhaps a little whitewashing, and there is also the scrubbing of the outside of the entire abdominal walls of the patient. But the wounded wall of the abdomen and the wounded peritoneum, and its most tender, sensitive and absorbent surface, are to be allowed contact only with plain boiled, or even blood-hot, water, and with no antiseptic or pickling re-agent, however innocent. The peritoneal cavity must

remain satisfied with plain warm water, certified to contain germs big and small, says antiseptic surgery, if it will be so perverse and will not stand washing with the protective and defending corrosive sublimate or the good carbolic acid, or even dusting with the gold dust of iodoform, or wiping with germicidal medicated mops. And since the peritoneum is so disagreeably intolerant of all these good things of preservative re-agents and pickling fluids, the surgeon will not let even the flesh wound in the abdominal wall taste them. Only, of course, he must have the satisfaction of dusting with iodoform the stitches in the abdominal wall, and covering them carefully with a strip of oiled-silk protective soaked in antiseptic fluid. But surely the scrubbing of the floor and the whitewashing of the walls of the operation room, and the scrubbing of the outside of the entire walls of the abdomen of the patient mean efficient sanitation and personal cleanliness or hygiene, and not antiseptic or germicidal treatment of wounds.

Medicine teaches similar lessons. Antiseptic treatment of phthisis has failed again and again. If, indeed, the tubercle bacillus were the beginning and the end of phthisis, the antiseptic method ought not to have failed. The entity of a bacillus ought not to be such a difficult matter to exercise. As a matter of fact an attempt was made, as soon as it was found that aniline killed the tubercle bacillus in the laboratory test tubes to pursue a similar course in the patients, but unfortunately the patients were killed before the bacillus was reached. When Koch gave up doing the tubercle bacillus with direct poisons, he tried to get round it by his domestication process, letting loose in the system his "domesticated" virus bred and brought up under special secret and "patented" conditions, against the work of its wild progenitors. The "patent" proved, no doubt, serviceable to Koch, but not to the German Government, who purchased all rights, nor to the patients to whom it was retailed at considerable profit.

When the tubercle "cure" failed against tubercle those interested in the new discovery boldly changed front and, abandoning the original position, sung its praise as a valuable diagnosing agent for "spotting" the tubercle soil. A cultivated tubercle virus is let loose on a system predisposed to tubercle, and for what?—to work out its destructive changes which mark the progress of consumption and are the signs of the disease in progress, or, as is scientifically called, to "diagnose" tubercle, which really means to ignite and set it going! Indeed, in its incipient stages phthisis, or tubercle is discoverable without the help of "tuberculine." And there can be scarcely much justification for the attempt, even by specialists, to "spot" phthisis, even in doubtful cases, especially when there is nothing the specialist could advance to allay the mischief he sets up with his tuberculine.

Constitutional treatment is the only treatment that has availed in phthisical cases. The practical physician succeeds only when he leaves the germists to attend to the bacillus, and pays attention to the soil, viz., the physical condition of the patient. The "soil," which precedes the work of the bacillus, is of greater importance to the practical physician; the soil itself gives evidence of phthisis long before the bacillus is ready for observation. The diagnosis of phthisical lungs by physical signs, the general condition of the patient and the evidence of lung tissue itself in the sputum are of greater importance than a mere identification of the bacillus. Again physical signs and the tout ensemble of the patient afford better and surer guides to prognosis than the swarmings or otherwise of bacilli in a given slide specimen of the patient's sputa.

Phthisis is, generally speaking, destructive ulceration or ulcerative break-down of lungs. To limit its progress and bring about healthy conditions, the ulcer has to be treated constitutionally, like other constitutional ulcers, and such treatment has for its object the confer-

ring on tissues durance power, i. e., tone and vigor to counteract degenerative influences and thus enable the tissues to resist the destruction or disintegrating process, which is sure to follow degenerative changes. And a change to the hills means that the tender lungs are saved the injurious reaction between their surfaces and the heavy and irritating atmosphere of the densely crowded and low-lying districts, and of dark and badly ventilated town houses. Clinical experience teaches that it is a series of causes and conditions that prepare the phthysical soil in the lungs, and this preparation is more or less easy according to the original build of the lungs and the general constitution. It is not everybody that becomes phthysical in a given surrounding. And our frames are by no means a bundle of so many soils, nor is it that particular soils are unfolded at the bidding of particular bacilli, resident incognito, in particular localities—incognito because they are never seen outside their sphere of work, i. e. outside the diseased tissues.

It is difficult to imagine, as bacteriology would have us believe, that we are surrounded by these deadly germs, which are ever ready to attack man, beast and plant, or that our systems are but bundles of ready prepared "soils," and that to escape the action of biogenesis and save ourselves from being eaten up by the deadly enemies that surround us unseen, we must either "aim" at these germs, or sterilize the "soils" by charging our systems with germicidal antidotes in full or "attenuated" doses, either in the shape of chemicals or emulsions of dead matter, like the spinal cord emulsions of anti-rabic virus, or the secretæ and excreta of the germs in the wild or the domesticated state, or introduce within us the "domesticated brutes themselves, so that they curb the action and behavior of their wild progenitors, or sterilize our systems—the bundle of "soils" hydrophobic, tuberculous, diphtheritic, choleraic and what not—by the drying processes of the laboratory test tubes, or by soaking them in pre-

servative fluids, after the manner of pathological pickles or museum curios! In the olden times one of these methods, based on the assumption of the germ causation of the disease, viz., the charging of the system with a complete collection of attenuated and domesticated viruses of all possible diseases, was happily hit upon by Radama II, King of Madagascar. And in these days of fortune making with catching speculations and taking advertisements it is not to be wondered at that the causation of disease, having been reduced to the beautiful simplicity of offending microbic units, it has been open for all and sundry to conceive or concoct discoveries of antidotes against the offending microbes. The smoke-ball antidote to influenza recently missed the influenza bacillus, which, thus left free, unfortunately caught the "old lady" and laid her down with influenza, and for this erratic action of the bacillus, the Smoke Ball Company had to pay £100 in an action at law, as that was the sum they had advertised to pay for every influenza bacillus that escaped the fire of their smoke-ball and victimized their customers. But the conception of discoveries of germicidal nostrums or humbugs does not stop at the inventing of means against this or that disease germ. Recently we have been flooded with endless and infallible pills and powders warranted to kill all possible disease germs, and thus prove not only universal cures and panaceas, but the very elixirs of life, for, when taken as preventives, they will kill these germs before they touch the human fluids! Whilst scientific bacteriologists have been laboring long and in vain, as they must needs do with all their knowledge of biology, chemistry and physiology, and with all their facilities of laboratory equipments, to discover a re-agent which shall effectually combat only one of the disease germs, a glorious and unfailing panacea in the shape of a universal "microbe killer" has been miraculously revealed to some fortunate individuals hitherto unknown and unheard of by the scientific world, and one

has only to advertise with sufficient frequency to catch the eye of suffering humanity and to elevate the nostrum to the dignity of a scientific cure. This panacea is the powder and shot of all disease germs, and if washed down with a sufficient quantity of innocent faith will work not only cures, but even prevent anybody from getting ill, for all ills are microbe caused, and its marvelous efficacy is of course testified to with all the wealth of imposing headline by all manner and conditions of men.

This much is certain, that whilst the germ theory has not practically benefited the science of rational treatment, it has certainly enriched many an enterprising speculator, and some well-known scientists. The tubercle cure of Koch was a patent purchased by the German Government for a handsome price as a valuable remedy, but, as is now admitted, it is not a cure at all, and, put at the highest it is said to be only a diagnosing agent, and that only in certain cases. But of this more later on.

Bacteriology has not given a single therapeutic measure in any single disease which it has set down as germ-caused. It is difficult to see how bacteriology can help practical medicine in relieving suffering humanity by cablegram messages of brilliant discoveries of germs in every imaginable unhealthy condition or disease. Even pneumonia (inflammation of the lungs) was at one time set down to a pneumococcus, but the discovery was announced with a flash, which, alas! soon vanished, and nobody now thinks of making designs on the pneumococcus to abort pneumonia. Why, even the pneumococci discoverers themselves have left it alone and do not think it worth their while to trouble it, or to find out how best to deal with it!

Bacteriology is making the noise and claims which chemistry at one time did, and especially when organic products came to be artificially prepared by synthetical processes. It was at one time supposed that one had only to know chemistry of na-

tural and unhealthy changes in the tissues and the riddle of disease and cure was solved in an instant. Chemistry and physiological chemistry have no doubt a place in the science and practice of physic, but the dreams of its building up broken-down and destroyed or altered tissues are all over. And bacteriology that now claims to be the mistress in the science and art of physic has only to wait its time to find its own level. It is but a new "conceit," but the fashion is not so taking now as it once was, in spite of the mass of literature giving profusely illustrated historical and biographical sketches of our natural enemies, for they are more and more looked upon as but simple forces employed by nature to do analytical work, after the tissues are diseased, i. e. after they have undergone the required physical and chemical change and have entered the state which is necessary for the dissolution work of the germs. Moreover, minds are more and more awakening to recognizing the fact that not a few of the epidemics, and even cholera, were not coaxed into retreat or dissolution by any threatened detection and poisoning or "domestication" of the specific viruses, or any threatened resort to protective inoculations of their "domesticated germs." Nor are anti-cholera inoculations going to do more than did the flashy tuberculine inoculations. So long as the ruling passion of the hour—the germ inoculation—sways prepossessed scientists and popular fancy, anti-cholera inoculation must in its turn flash forth and keep up aglow so long as it is fed with novelty and skillful "booming," which can but last awhile.

The germ theory of disease naturally raises the important question, if the deadly germs are about us and are ever trying to force entrance within us, what is that saves so many deadly enemies, the aerial elements? At an early stage, when the conceptions of the germists were somewhat crude and hazy, they explained away the inquiry by a simple assertion that healthy tissues re-

sist the action of the germs, which really was begging the question. Later on, they put the "soil" in the forefront, along with the germs, in the causation of disease. But the subtle requirements of speculation in which the whole germ theory is enshrouded find a different expression in the hands of the more advanced germists of the present day. Perhaps, on the analogy of the metaphysical teaching of the resultant of two antagonistic forces—the good and the evil—of their different synonyms, the germ theorists imagine that disease is the resultant, i. e. the issue, of the battle which is every moment of our lives going on between the evil ones outside us and the good guardian angels within. A priori, therefore, there must be these guardian angels who literally act as body-guards within us. In this arduous search—arduous because, like all good angels, they did their good offices to us unperceived so long—the germ detectives at last succeeded in alighting upon the ever-accommodating and many-sided white corpuscles of the blood, for lo! they were eyed by the eagle-eyed germists and discovered in the very act—a noble and self-sacrificial act—of actually devouring these germ enemies of mankind! This new attribute of the spirit, the force, or whatever else it may be called—the white cell of the blood—naturally led to a new individuality being conferred upon it and, as in metaphysics, the original force or spirit manifests itself in so many shapes and individualities according to its varied attributes, like Indra, the rain-giver, so in this new science, the white cell of the blood is to be henceforth known as the phagocyte, i. e. the devourer of the germ enemies of mankind. It is really interesting to know that each individual maintains a standing army of the phagocytes within himself. As soon as the disease germ gains entrance within, a battalion of phagocytes marches out (under the orders of some unknown and undetected leader) to meet them, and disease or no disease is thus decided. The phagocytes may not move fast enough and may refuse to

join battle, and then the evil ones naturally have their own way and devastate the territory supposed to have been guarded by the phagocyte standing army. Or, there may be some skirmishing, in which, according to the balance of victory on one side or the other, there may be some show of bacillus-work in the system. Or there may be right royal battling, in which the phagocytes eat up the enemies bodily and, making them thus disappear, save the systems they are guarding from disease, and of course this sort of warfare goes on perpetually. Or, unfortunately, they are literally shelled by the enemies, and the citadel they are guarding is razed to the ground and returned again unto dust. It is all very pretty this, the new phase of the germ theory. The white blood cell standing army is a very pretty idea, but unfortunately it abounds in greater numbers in just those very conditions which are known as degenerations, and which are the precursors of utter break-down. But then it is not this white cell. It is the other, you know, and there are so many kinds of them, or rather they are gifted with so many attributes. Perhaps the numerical strength of the white blood cell army goes for little. It is, no doubt, the quality of the fighting individuals rather than their number that decides the winning or the losing of the battle. Without following the germists in the tangled maze of phagocytic work, one may affirm that the quality or efficiency of the phagocyte standing army will depend on the resources of the kingdom which looks after its upkeep, and what are those resources but the physical, chemical and physiological states of the blood, in other words, the old-fashioned "humors" of the system, or as is now both popularly and professionally called the "constitution?" Thus then the latest development of the germ theory of disease, when logically examined, lands us back in the regions of "constitutions" and "vital fluids" and "humors," and points to erratic changes in these as the causation of disease. Thus, too, the

germ theory of the causation of disease, which originally ridiculed and abandoned the "humors" and the "vital fluids" of the ancients, has once more returned to its starting point, and the germs also by their circular peregrinations seem to furnish an additional proof that the earth is round! The phagocytic head of the hydra-headed germ theory, which places the germs at the base of even simple inflammatory processes, sets at nought the physiological teaching of the trophic (nutrition) function of the nervous system. Inflammations, and even the low inflammations observed in broken-down constitutions (e. g. diabetic inflammations), and in parts deprived of the healthy influences of the nervous system (as in paralyzed limbs) are now declared to be due to the germs. A blow over a paralyzed part or in a broken-down constitution, and inflammation follows. Either the germs enter the skin with the blow and conquer the locally stationed garrison of the phagocytic standing army, or perhaps the local garrison is killed within by the outside blow, and no fresh battalion would sally forth to meet the invaders, who enter at the seat of the blow. Fine and highly refined as the latest speculations on the action of germs may seem they are certainly opposed to science no less than to common sense.

The germ theory has seen many phases, and many of them contradictory. If it is not one thing it is another, but somebody, some special entity, is at the bottom of it all! There is an entity which is the beginning and the end of fevers, rheumatism, boils, tetanus and what not. The entities have to be chased and exorcised from the system. The "humors" of old, like the hairs of the organ of Corti or the perception fibres of the retina, were many and various. Each played its special part and evolved the various diseases. The entities or the disembodied spirits of the Indians used to enter the system and had to be exorcised in a variety of ways, by a free efflux of secretions—violent purging, vomiting and sweating, or by branding, or by thrashing to the

tune of reed pipes and drums. It was the "humor" or the "elemental" that engaged the whole attention. Their modes and habits and their pranks formed the subject of serious study, but not so the physical signs of the "possessed" patient. Is not the germ fad a pure reversion to the olden mental condition full of "elemental" and "humor" hallucinations and illusions, in the nineteenth century garb? The germs have monopolized undue attention and directed the progress of curative science in altogether wrong channels. Bacteriological therapeutics is but a system of modern alchemy, and rests and proceeds on incorrect assumptions and daring guesses, as conveniently abandoned, as confidently set up. It would seem as if the germ theorists and bacteriologists were bent upon sustaining their charge against the germs by one manœuvre or another lest their occupation be gone! Fortunately, however, despite the brilliant discoveries revealed to the world by Reuter from time to time, of this, that and the other bacillus, which, however, in course of time burst up like so many bubbles and disappear, the germ scare is cooling down and germs will soon cease to be the objects of such anxious care and study, and will in time be consigned, in all probability, to the limbo of exploded myths which have had their day. Thinking men are persuaded that the influenza and the various plagues that visited the earth disappear from their scenes of action, not because of their bacilli being threatened with detection and death by the international eagle-eyed detectives in the bacteriological service, and that it is only the nervous and the excitable, led away by plausible theories clothed with the authority of specialists, who will be scared by the germs, and fly in their panic and distress to whatever panacea may be going, whether in the shape of anti-influenza smoke balls, which may give the influenza and also £100 in a law Court, or the microbe-killers of sorts, so confidently advertised as the inspired discoveries of men of the stock exchange and not of scientific training.

—The Indian Lancet, July 1, 1896.

## CONGENITAL TEETH.

Ballantyne (Edinburgh Med. Journ., May, 1896) delivered a child in 1894, and a few days after birth found that the two lower central incisors were cut. They resembled in their characters teeth discolored by the use of iron tonics. Two new central incisors appeared in their place about the seventh month. The mother believed that the earlier pair were absorbed; Ballantyne thinks it more probable that they simply dropped out. The child remains healthy. Buist in 1893 detected the two lower central incisors already cut in a child born at term. The gum was swollen and the teeth loose. Both came out with a month, and have not been replaced, although the dentition is otherwise normal. Vargas, of Barcelona, in 1895 examined an infant 2 days old, suffering from tongue-tie and a projection from the lower gum a little to the right of the middle line. It was cut away under cocaine, and proved to be an extra-alveolar dental sac containing an incisor with no root. The literature of the subject is reviewed by Ballantyne. Congenital teeth are usually lower incisors, seldom upper incisors, and very rarely molars. Cases like that reported by Vargas and published by Ballantyne undoubtedly represent ectopia of the dental follicle. The majority simply signify premature development of the teeth. Congenital teeth interfere with suckling, and are ill-developed; they should therefore be removed. They have little, if any, relation to the health of the infant.

## GREEN HAIR.

Greenish hair in men occupied in copper works and in copper mines is not unknown, for as far back as 1654 Bartholin drew attention to

its occurrence. Since then several other observers have recorded instances of the same.—(Ex.) The most recent case is that of Dr. Oppenheimer's, who, at a meeting of the Johns Hopkins Hospital Medical Society, showed a specimen of green hair obtained from a patient who had been under his treatment. The man at 58 had been a workman in copper oxide dust. He was not very cleanly in his habits and was suffering at the time of his visit from vague gastric symptoms. No pulmonary signs were detected. The hair was a pale but distinct green, this color being more marked on the head and the mustache. But, curiously enough, in the hair all over the body the same coloration was displayed. Copper was easily demonstrated chemically. Microscopically the hair was uniformly colored, no crystals being seen anywhere. The patient did not return after his first visit, and it was ascertained that he died two years later with a severe cough. The fact, however, is certain, that workers in copper works need not necessarily become affected with the poisonous metal, provided that scrupulous cleanliness be observed. The hair must be washed daily in a solution of soda, ordinary water being useless for the purpose. Experience shows that the part first to become affected is the mustache, but if the latter be protected by a thick cap no coloration is produced. Unless care be taken as indicated, three or four days after starting work will be sufficient to cause the coloration to appear, and in summer time it is especially prone to occur, when perspiration is free. It is of some interest to note also that the underwear has a greenish tinge wherever it has been thoroughly soaked with sweat.

—Indian Lancet.



## Foreign Exchanges.

Translated by F. E. CHANDLER, M. D., Boston, Mass.

### HYDATIDS.

M. Champenois concludes that in hepatic hydatids we may first try two or three punctures of the cyst, with sublimate or naphthol injections. This alone will sometimes effect a cure, but when the fluid re-accumulates we should make a free incision over such a site as will insure the best drainage by a Billroth-Delbet incision, or Landeau's transperitoneal flap.

### UTERINE CANCER.

The treatment of uterine cancer by medicine alone is quite useless. Total ablation offers the most positive and permanent results.

The contra-indications are great debility or an extension of the disease to neighboring organs.

### CEREBRAL DISTURBANCES OF A TRAUMATIC ORIGIN.

M. Bechaliu believes that certain types of insanity may depend entirely on injury to the brain. Mental disturbances may follow immediately after injury or may appear at a much later date.

Cerebral irritation is one of the producers. The author comprehends under this term headaches, dizziness, ringing in the ears, loss of sleep, with strong inclination for alcoholics.

Concurrently we may find associated with the influence of trauma other special etiological factors, as hereditary masturbation, syphilis, or alcoholism.

The prognosis of traumatic insanity is bad when there are any of the above complications.

Those afflicted with this form of

insanity, whether complicated or not, are subjects of genesic excitation, very marked. It is much more common in males than females.

### RETIO PHARYNGEAL ABSCESS.

M. Thoyer Rozat, writing on the above topic, declares that these abscesses are much more common than is generally supposed, and that, through their hidden position, and thus escaping detection, not a few lives are lost. Death ensues through a slow asphyxia. At times their onset is sudden, with spasm of the glottis, when one may be led to suppose the case is one of simple croup. It is therefore highly important that a thorough examination of the larynx be made in all these cases, especially in children, before any temporizing remedies are administered.

Surgically these are attacked by two routes, one direct through the mouth—buccal; and the other, indirect, through the neck—the cervical. The incision through the mouth is the one of choice, and suffices in the majority of cases. But when the abscess is low down, encroaching on the larynx, an anesthetic may be necessary, as a tedious and difficult dissection will be required to remove the pent-up pus.

—Therese de la Faculte de Bordeaux, Gazette Heb., 3 Aout, '96.

### A FEW WORDS UPON EMBALMING.

It is well known that embalming is necessary for deceased persons whose obsequies must be more or less retarded. Here are some technical details that the **TEMPS** gives on this subject:

The Egyptians practiced embalming almost generally; the Greeks and Romans used it but little, having adopted cremation, or the destruction of bodies by burning.

The etymology of the term is attributed to the balms used to preserve the corpses from decomposition. Nevertheless, excepting in the rich classes, embalming was done in the most summary manner in ancient Egypt. In every case the embalmer broke the ethmoid bone with an iron instrument, and removed the brain; next the intestines were removed through an intestinal incision, and thrown into the Nile. The body, cleaned with essence of cedar, was stuffed with myrrh, cinnamon and pitch, then salted, swathed with linen bands, placed in a wooden box, and finally given back to the family.

Such was the first-class embalment. The majority of the dead were treated with an injection of some antiseptic liquid and put in pickle 70 days.

Embalming has also been practiced in the Canary Islands.

In Mexico, Von Humbolt mentions a case of natural mummification. The Spanish and Peruvian dead left on the field of battle, upon a dry soil in a torrid atmosphere, dried so quickly that they hardened and remained intact.

In France some tombs have the property of mummifying the cadavers by the chemical action of the soil and of the atmosphere. The cave of Toulouse is perhaps the best known of these.

Embalming was done with aromatics for a long period. The intestines were incised and washed with water, vinegar and camphorated alcohol; the incisions washed with a sublimate solution and the cavities filled with a powder composed of tar, salt, quinquina, cinnamon and benzoin dissolved in an essential oil. The body, sewed up, was varnished with an aromatic varnish composed of Peruvian balm, styrax, the oils of lavender and thyme, next swathed in linen bandages and placed in a leaden coffin. Each celebrated embalmer has varied the formula more or less. Berzelius extolled the in-

jection of wood vinegar. M. Brocnot recommended the sulphate of iron or ordinary green vitriol. Dr. Chaussier plunged the body, perfectly emptied and washed, into a bath of corrosive sublimate. Dr. Gonnal used an intravenous injection of a saturated solution of aluminium sulphate. Mr. Falconi places a solution of sulphate of zinc at the head of preserving liquids.

An injection of four and one-half litres of a saturated solution of this salt renders a body imputrescible.

When the body of a diseased person is to be exhibited, the brain is extracted as far as possible by breaking the ethmoid bone or by trephination, the interior of the cranial cavity is injected with sublimate; the mouth is filled with cotton wool or oakum impregnated with rosin to prevent the sinking in of the cheeks.

Finally, the eyes are replaced by ones in glass or enamel and occasionally only, the face is painted.

It is sometimes the case that the relatives of the deceased wish to preserve the heart separate from the body. This organ is then detached, leaving a tip of the arterial and venous trunks; its cavities are plugged with cotton-wool or oakum, and the whole is plunged for five or six days into an alcoholic sublimate solution after which it is taken out, dried, covered with a coat of red varnish, and inclosed in a capsule of lead or silver.

Such are, generally speaking, the methods used for embalming.—*Le Progres Medical*.

#### THE BACILLUS COLI COMMUNE.

Dr. E. Monin says that one of the most interesting discoveries of contemporaneous medicine is the bacillus coli commune. This guest of the intestinal canal is usually harmless, but may become the agent of ster coral toxemia and deadly auto-poisonings. Traces of the deadly work of this bacillus may be found in all the gastro-enterites, including cholera and typhoid fever; in icterus and the inflammation of the liver; in

nephritis, in anginae and the most diverse suppurations; meningitis, carditis and pneumonias have also been described where the bacillus coli commune was evidently the microbic element.

How and when can the virulence of a common, ordinary bacillus be increased to such a point?

Why, from being innocuous or even beneficent (according to those authors who accord it an eupeptic action) does the bacillus coli come to secrete toxins that are as deadly as those produced by the bacillus of Eberth? How, also, does its pyogenic and septicemic powers cease and degenerate until they become absolutely nil? These are questions that it would be dangerous to attempt answering.

All that we know is that the intestine, irritated and disquimated by chronic constipation and the resulting phlogosis, allows the bacillus coli to penetrate it; then, infection of the blood.

We know, also, that a well-directed purgation with saline cathartics, by eliminating and destroying the pathogenic poisons elaborated by the microbe, protects us from the prodromic accidents of gastro-intestinal incumbrance.

Finally, Dominici has shown the important part played by hepatic difficulties and biliary changes upon the genesis of abnormal virulence caused by the bacillus coli commune.

Practically, should we not decide that the best method of preventing such bacterial misdeeds consists in modification of the surroundings in which the little bayonet lives and carries out his transformations? The unanimous opinion of the best clinical teachers is that the best modi-

fier, in this sense, is a good, natural aperient mineral water.

Mineral waters of this class have a far better action than any other known form of cathartic. It is truly astonishing when we consider the extent of the pathological domain of the bacillus coli commune. This vigilant enemy is hidden in the organism, and waiting to take advantage of its slightest weakness (Gilbert) to become septic and pathogenic in organs the farthest removed from, and apparently the least connected with the intestines. For my own part these discoveries of modern microbic pathology put in a new light the admirable prescience of our elders (Murchison, Jules Guerin, etc.), who vaunted the prophylaxis of typhoid by habitual cathartics.

Not only are the intestinal saprophytes mechanically removed by the washing out—*ab ore usque ad anum*—but we awaken the phagocytic power to a remarkable degree; we bring the vaso-motor action of the coeliac axis (that brain of the venter) into equilibrium.

Purgation with natural saline waters is of great value to the gouty and to those in whom nutrition is faulty; the internal chemistry of both cases being bad; also the uricemics, the dyspeptics, the neurostenics and especially the uremics, who are exposed by the vitiated state of their blood to the multiple perils of coliparasite toxemia, all of these classes of patients are greatly benefited by regular purgation.

As a matter of fact the more pathology becomes enlightened the more traditional therapeutics stands out in its simplicity—*initium salutis bene moratus venter*.—*Le Progres Medical*.



## Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

### SURGICAL TREATMENT OF CALCULI IMPACTED IN THE COMMON BILE DUCT.

Vautrin gives a critical account of the various forms of surgical treatment available for calculous obstruction of the common bile duct. (1) Pressing the calculus into the duodenum or into the gall bladder, from which it is removed by cholecystotomy. This, though the ideal treatment, is seldom practicable. The gall bladder is often collapsed, and in these cases the cystic duct is smaller than natural. Compressing the stone into the duodenum is still more difficult. Breaking the stone and pressing the fragments into the gall bladder is unsatisfactory, because fragments are very likely to escape into the hepatic duct, and give rise to recurrence. If calculus has been pressed into the cystic duct, but cannot be got into the gall bladder, cystotomy as proposed by Hans Kehr may be done. (2) Crushing calculus in situ, and compressing fragments on into duodenum. This should not be done unless calculi can be crushed by fingers. The operation may give rise to infection of ducts with bacillus coli. Breaking the calculus with needles is dangerous. In 28 cases, 4 died and 4 were not cured. (3) Choledochotomy: in 27 cases 16 were fatal. When there are calculi in the gall bladder a further operation is required. Cholecystotomy should only be done when gall bladder is very friable or much inflamed. Cholecystotomy hardly adds to the gravity of the operation, but cholecystostomy is better, as by providing an escape for the bile it prevents the duct becoming dilated and leaking into the peritoneal cavity. The flow

through the duct is slow to re-establish itself, but when this is effected the cholecystostomy wound usually closes spontaneously. (4) Duodenotomy. Opening the duodenum and extracting calculus impacted in diverticulum vateri has only been done twice, but might be preferable to doing choledochotomy in this situation. (5) In an exploratory operation, where it is impossible or inadvisable to examine the condition of the duct, the wisest course is to do cholecystostomy, and so palliate the symptoms of cholemia. When the patient recovers the further operation of choledochotomy may be done. (6) In the other palliative operation of cholecystenterostomy there is danger of infection spreading from the intestine and of strangulation of the bowels at the point of attachment. Sprengel and Riedel have united the bile duct to the intestine, and Yversen has brought the dilated bile duct to the surface of the body, choledochostomy.—*Revue de Chirurgie*, June 10.

### INSECTS AS AN AID IN SURGERY.

One of the most curious uses to which insects are put was related at a recent meeting of the Linnean Society of London. It was stated that the Greek barber-surgeons of the Levant employed a large species of ant for the purpose of holding together the edges of an incised wound. The ant, held with a pair of forceps, opens its mandibles wide and is brought near to the cut being treated, so that it can seize the two edges, which are held together for the purpose. As soon as the unfortunate ant has obtained a firm grip of the cut its head is severed from its body. Mr. Issigonis, of Smyrna,

who described the operation to the Linnean Society, said that he had seen natives with six or seven ants' heads holding together wounds in the course of healing. A similar observation was made some years ago in Brazil, which fact is interesting from an ethnological point of view, as showing the independent existence of the same custom in countries as far apart as Brazil and Asia Minor.

—Indian Lancet, May 16, '96.

#### CANINE EPITHELIOMA OF THE PHARYNX.

With the exception of a slight difference in the shape of the cells the features presented in this section are similar to those found in the human subject, as will be seen by comparing the specimen with one of human epithelioma of the pharynx which is purposely placed under one of the microscopes.

#### BRAIN ABSCESS.

Thirty to 40 per cent. of all brain abscesses are otitic. In 26 cases at St. Thomas' there were nine temporo-sphenoidal and 19 cerebellar. At Great Ormond street two temporo-sphenoidal and four cerebellar. The authors quote headache, vertigo, photophobia and purposeless vomiting, optic neuritis, low temperature, slow pulse and respiration, drowsi-

ness, foul breath and constipation, loss of control of bladder, emaciation, pallor and loss of expression of countenance; and, as localizing symptoms, paresis of the anterior extremity on the same side as the cerebellar lesion, associated with weakness of the lower extremities, increased knee jerk on the same side as the lesion, and conjugate deviation of the eyes away from the lesion. The various explanations of this hitherto offered are not deemed satisfactory. Muscular rigidity or convulsions may affect the limbs on the same side as the lesion. A tendency to rotation of the face to the side of the lesion in walking. Staggering or cerebellar gait, and a tendency to fall toward the opposite side of the lesion. A tendency to lie coiled up in bed on the side opposite the lesion. No loss of sensation. The localizing symptoms of temporo-sphenoidal abscess are enumerated and discussed.

And the following points in differential diagnosis are pointed out: 1. The patient tends to lie on the side of the lesion in temporo-sphenoidal lesion. 2. Frequent depression of lower jaw. 3. Tenderness on palpitation is not necessarily that of abscess. 4. Differential percussion note is not reliable. 5. Disease of the bone in the attic, or posterior fossa, indicates the direction in which to search. 6. McBride's sign also not certain.

—The Journal of Laryngology.



## Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.

### OIL OF PENNROYAL AS A REMEDY FOR THE SUPPRESSION OF MILK.

Dr. C. C. Moore, of New York, in the Colorado Medical Journal alludes to several cases in which the oil of pennroyal, freely rubbed upon the breast at intervals of an hour, caused suppression of secretion and averted threatened abscess.

### LACTATION AND ATROPHY OF UTERUS.

Vineberg (Amer. Journ. of the Med. Sciences, July, 1896) after careful examination of the uterus in women during lactation, finds that a true process of atrophy goes on quite independently of even relative debility or anemia. Indeed, in women who remain feeble after labor or become weak from any cause, external or internal, and in patients anemic before pregnancy, the uterus tends to remain large. Subinvolution in fact is, as has long been recognized, a morbid condition; but Vineberg finds that when involution goes on to its full completion the uterus is reduced to a size smaller than that of the non-parous organ. The author's tables are valuable. This condition—post-puerperal superinvolution—is principally seen in nursing women, and from this circumstance has been termed "lactation atrophy." It is normal and desirable, and is temporary, becoming permanent under rare and unfavorable circumstances. When the lying-in woman cannot suckle the medical attendant should try to bring about super-involution. This course, Vineberg believes, will save her from the development of a host of maladies due to subinvolution.

### ORIGIN OF MULTILOCULAR OVARIAN CYSTS.

Burckhard (Virchow's Archiv, Bd. 144, June 3d, 1896) discusses the origin of multilocular cysts in the ovary, and concludes that they are all derived from the germinal epithelium or its derivatives, the tubes of Pfluger. They can only arise in an ovary where malformation has occurred in fetal life; no cyst can ever arise in a normally formed ovary. The cutting off of cysts from the epithelial tubes is due not to an active growth of epithelium, but to an increase of connective tissue. When cysts are once formed their enlargement takes place not merely by pressure from within, but by active growth of their walls.

### VAGINAL SECRETIONS IN PARTURIENT WOMEN.

Last month some statistics were given on antiseptic obstetrics. Since then we read that Doderlein, Winter, Steffek and others claim to have found pathogenic micrococci, particularly the staphylococcus albus and aureus and other pus-producing microbes, in the vaginal secretions of women after labor. On the other hand, König examined the vaginal secretions of 100 women after labor who were aseptic at the period of labor, and found in the lochia more frequently the streptococcus, seldom the staphylococcus aureus and never the staphylococcus albus. In 300 pregnant women he found the vaginal secretions to be acid, and concluded that in pathological conditions the secretions attain a much higher degree of acidity, so that the streptococcus pyogenes could hardly thrive therein, and he was unable to secure cultures of

this germ. With the exception of the thrush and gonococcus germ, he concludes that the vagina of every untouched pregnant woman contains nothing pathogenic and is therefore aseptic. He considers vaginal injections of antiseptics dangerous to the ordinary patient, in that they may chemically lessen the resistance of the tissues to bacteria and may increase the intensity of septic endometritis by washing bacteria into the uterine cavity.

This is another instance of disagreement among so-called authorities, and leaves nothing for the humble practitioner to do but read both sides and then use his own good judgment. Every experienced physician knows that unless he carries poison into the vaginal canal on an unclean finger, in private practice, the kind most of us do, there is little reason to fear these pathogenic microbes. Cleanliness alone is all that is usually required either before or after labor, but at the same time it is quite certain that there are advantages and disadvantages in each method. A hot sublimate or carbolic injection during labor shrivels and contracts the vaginal mucous membrane by contracting the capillaries, removes from it its natural lubricat-

ing secretion, thus largely augmenting the friction between the head and the vaginal walls, retarding the progress of labor and necessitating greater powers of expulsion. After labor, when it is desirable to use a wash for cleansing purposes only, simple, plain borax dissolved in warm boiled water will be found pleasant and efficient. Let the solution be of about the specific gravity of the blood, so as not to encourage osmosis.

—Indian Lancet.

#### INFLUENZA AND FEMALE SEXUAL ORGANS.

Muller noted the condition of the pelvic organs in 157 cases of influenza, 21 women being pregnant, 17 of whom aborted. Of the non-gravid women all but three showed symptoms of uterine disturbance, either hemorrhage or aggravation of previous troubles. Hemorrhagic endometritis commonly developed, as in cholera, typhus and other infectious diseases. After the decline of the disease the uterus was frequently found to be enlarged, and evidences of chronic endometritis were present, which seemed to be directly due to the influenza.

—American Journal of Medical Sciences.



## Therapeutical Progress.

### EMPLOYMENT OF EUCAINE IN OPHTHALMIC PRACTICE.

BY DR. EMILE BERGER.

The attention of the readers of the *Revue de thérapeutique medico-chirurgicale* has already been called to the investigations made with Eucaine by Vinci in Professor Liebreich's laboratory. When Vinci's results were communicated to the Hufeland Society in Berlin on 16th of April, we were already engaged in an extensive clinical examination of the new anesthetic. Vinci's research deals with the action of Eucaine in ophthalmic operations, and we have also only employed the anesthetic in cases falling into this department. It has, however, been deemed advisable to make the following publication, because in many points we have not obtained exactly the same results as Vinci. The differences are mostly in matters of detail certainly, but in ophthalmic practice the smallest details must not be overlooked.

Eucaine is the methyl ester of benzoyl-methyl-tetramethoxypiperidine-carboxylic acid. It differs from the cocaline prepared in an analogous manner by one methyl group which replaces the hydrogen atom in the imide group of the latter.

Eucaine, like cocaine, is only slightly soluble in water, but the neutral salts formed by combination with acids are soluble. The hydrochloric acid salt of Eucaine appears in two forms. One modification crystallizes from water in small shining plates, which contain a molecule of water of crystallization, and possess the composition expressed by the formula  $C^{19}H^{27}NO^4.HCl.H^2O$ . This salt dissolves in water at the ordinary

temperature to the extent of 6 per cent. The second modification crystallizes from a solution in methyl alcohol in shining prisms, which contain two molecules of methyl alcohol in crystallized form.

These differences have been emphasized because they possess a clinical interest. The presence of methyl alcohol in the prismatic crystals gives to Eucaine an apparent irritant action, and makes this modification of the salt unsuitable for employment in ophthalmology. Eucaine hydrochloride crystallized in the form of small plates should therefore alone be used, at any rate in ophthalmic practice.

The physiological experiments made by Vinci demonstrated that small doses of Eucaine suffice to increase the reflex excitability in mice and rabbits. Doses of about one-third of a gram per kilo body weight induce tonic and clonic convulsions. If the dose is increased symptoms of paralysis appear under which the animal eventually died. If the animal, however, resists the dose, the paralysis following upon the convulsions at length totally disappears. A few experiments will show that these symptoms take their origin in disturbances of the central nervous system, but to enter into details would lead us too far away from our subject.

Altogether it is recognized that the physiological action of Eucaine is analogous to that of cocaine, but that the latter, as determined by comparative experiments, possesses a greater degree of toxicity. Eucaine slows the pulse considerably, while cocaine makes it more rapid. As regards the duration and intensity of the anesthesia Vinci has found

that both substances are practically identical. There exists one important difference, however, which we have studied more closely in consideration of its importance in ophthalmic practice. Cocaine induces ischemia, whilst Eucaine increases the vascular blood pressure; moreover careful examination of the results obtained by the instillation of Eucaine solution into the conjunctiva proves that the pupils are not at all affected.

These points are important, and are eminently in favor of Eucaine, as cocaine induces mydriasis and disturbances of the accommodation.

In our clinical trials, which we believe to be the first made in France with the new drug, we employed 1 and 2 per cent. solutions of the plate modification of Eucaine hydrochloride. From the very commencement we noted slight differences in our results from those of Vinci. For instance, one drop of the 2 per cent. solution dropped upon the conjunctiva caused a more pronounced burning sensation than the instillation of a solution of cocaine of like strength. Vinci only observed these symptoms of irritation when using Eucaine hydrochloride containing methyl alcohol in the crystals.

Fortunately, this irritant action, always unpleasant to the patient, can easily be avoided in the case of Eucaine by a slight modification of the treatment. Instead of commencing at once with a 2 per cent. solution, a drop of 1 per cent. Eucaine solution is first instilled; this drop causes no irritation and suffices to annul the sensibility of the conjunctiva in about three minutes. A drop of 2 per cent. Eucaine solution is then added, and now no sensation of pain is at all experienced. Generally in about 2 1-2 minutes after this second instillation complete anesthesia of the conjunctiva and cornea is set up and continues on an average for 10 to 18 minutes. There exists also a very remarkable difference in the kinds of sensibility, of which Vinci makes no mention. Sensibility towards the contact of foreign substances is first of all suspended; thermal sensibility withstands the

action of Eucaine longer, but finally, in course of time, is likewise completely suspended. A similar experience has already been noted by us with cocaine. (*Societe de Biologie*, 1893.)

We are quite in accord with Vinci as to the equality of the anesthesia produced by cocaine and Eucaine, both as regards permanency and intensity. We have made comparative trials on both eyes in the same patients, and have come to the conclusion that the small differences sometimes observed are due rather to the unequal volume of the drops instilled. When operating with such small quantities of an active substance, it is always very difficult to maintain the experimental condition in each case absolutely similar.

Anesthesia progresses from the point where the drop falls upon the mucous membrane, and at this point it also lasts longest. According to Vinci, anesthesia is first developed in the cornea.

An accompanying symptom of the anesthesia produced with Eucaine is the development of the hyperemia in the eye treated, which extends over the whole of the conjunctiva, and persists longer than the anesthesia. In all our observations it had, however, disappeared in 30 minutes at the most after instillation. Moreover, a hyper-secretion of the lachrymal gland was noted in the eye treated with Eucaine. On these points our observations stand considerably at variance with those of Vinci, who obtained with the Eucaine crystallized in plate form "a very slight, scarcely perceptible hyperemia;" the hyperemia developed only when Eucaine containing methyl alcohol was employed. It is doubtful what is the origin of these differences, as in both cases the "plate" modification of Eucaine hydrochloride was employed.

Like Vinci, we have never observed the slightest widening of the pupil nor the least disturbance of the accommodation when Eucaine is injected into the eye. In this respect, it may be remembered that some time ago (*Societe de biologie*, 14th January, 1893) we suggested the

avoidance of both these important drawbacks to cocaine by its combination with pilocarpine.

In the eye anesthetized with Eucaine we have, moreover, never observed the disturbances of the cornea experienced with cocaine, due to the desiccation of the cornea, which is evidenced by the loosening of the cells upon the surface of the corneal epithelium. These succulent protoplasmic cells under the influence of cocaine exhibit fissures which, in case the conjunctiva is infected, afford entrance for pus microbes. A fact that appears in favor of this hypothesis is the increased tendency to the formation of corneal ulcers in the employment of cautery for cases of blennorrhagic conjunctivitis, if before cauterization anesthesia with cocaine is effected.

From the foregoing it is evident that the new preparation deserves to a very considerable degree the attention of eye specialists. Absence of mydriasis and of corneal disturbances is from a clinical point of view of the greatest importance, and should lead to the employment of Eucaine in all those cases—and they are very numerous—where the above-mentioned two drawbacks of cocaine may have serious consequences.

The congestion of the conjunctiva produced by Eucaine is undoubtedly a disadvantage, yet apart from the fact that Vinci considered the hyperemia scarcely worthy of notice, we have never observed any noteworthy symptoms as sequelae of the congestion. Our operative measures after production of anesthesia with Eucaine have been both numerous and varied. We have employed it prior to cautery with silver nitrate, copper sulphate pencils, or with copper aluminate (*lapis divinus*), for extraction of foreign substances from the cornea; before passing Bowman's catheter; in surgical operations, and in operations for chalazion. We even incline to the opinion that in a case of punctate keratitis combined with iritis, the hyperemia of the conjunctiva had a favorable effect. It is possible that this hyperemia influences the lymphatic

flow in a manner analogous to massage, but we only express this scarcely formed opinion with the greatest reserve.

For most of our present purposes we employ, moreover, a combination of cocaine and Eucaine in the following proportions:

R—Cocaine hydrochloride...4 grains.  
Eucaine .....4 grains.  
Boiled distilled water....1 ounce.

The vascular contractile action of cocaine which, according to Mellinger, retards the healing of wounds of the cornea and of affections of the anterior parts of the eyes, is counteracted by the vascular extension action of Eucaine, and whilst the anesthetic action of both preparations is cumulative, the action of cocaine upon the pupils and accommodation is diminished by one-half.

By injection beneath the skin Eucaine in 2 per cent. solution gives the same results as cocaine, without, however, producing those cases of syncope which are sometimes experienced with cocaine. Previously we have recommended a combination of caffeine with cocaine for hypodermic injections.

In conclusion we would repeat that Eucaine is an anesthetic of great value, which may be recommended to the attention of every practitioner. The combination with cocaine which we have suggested for ophthalmic purposes appears to us a convenient type which makes it possible to take advantage of the special qualities of both substances, and at the same time to minimize their defects. As Vinci has demonstrated, Eucaine solutions are absolutely permanent, and may be sterilized by heat without fear of decomposition. With cocaine this is not the case. (*Revue de Therapeutique Medico-chirurgicale.*)

#### SOLANUM PANICULATUM AS A REMEDY.

According to the *Medicinisches chirurgisches Central-Blatt* the root of this plant is used by the physicians of Brazil, where it grows, as a purgative and deobstruent in disease of the liver and of the

spleen, and has lately been a good deal employed as a tonic, alterative and drastic, particularly in catarrh of the bladder. Although Kobert, who experimented with it, found it inert, Michaelis thinks it is undoubtedly stomachic and useful in biliary colic and in chronic dyspepsia. He gives 16 drops of a fluid extract three times a day.—New York Med. Journal.

#### EFFECTS OF AMMONIA PICRATE IN MALARIA.

BY DR. AMRITA LALL BOSE,  
INDAS.

Khadu Mia, aged 30 years, was suffering from malarious fever for the last year. This fever with the utmost virulence is prevalent in this part of the country. He had been under treatment since the beginning of the fever. He was overdressed with quinine, and some of its evil effects when administered in

large quantities were visible. Both liver and spleen were much enlarged. He came under my treatment about the beginning of December. I commenced treatment of the liver and spleen and in a fortnight the enlargement was completely gone. But the patient was worse with regard to the fever. Without failure the fever came at 7 in the evening and continued till next morning; was very pale and weak. I was once more tempted to give him quinine, but the fever rose very high. I stopped quinine and the fever became regular as before. At this stage I discontinued all other medicine and prescribed Ammon Picrate 1-4 grain with Sodii Bicarb 2 grains thrice a day. After two or three days the fever became very low and in a week it disappeared altogether. Since that time I have tried it in two or three more cases with the same wonderful result.

—Indian Lancet.





## Miscellany.

### THE BLOOD OF THE GRAPE.

BY JOSEPH R. CLAUSEN, A M.,  
M. D.

The life-giving, life-sustaining qualities of the juice of rich, ripe grapes are co-existent with its life. Pure and unfermented it is a nutrient tonic of inestimable value, containing all the elements necessary to sustain life and to the building up of wasting tissues. Dead, or fermented—for fermentation is but putrefaction—this rich blood of the grape becomes at best but a stimulant of questionable medicinal value.

These facts admitted—and they are beyond question—it remains but to know where this elixir of life can be obtained in all its purity. While several frauds of grape juice have been brought to the attention of the medical profession none have so much to commend them as the product of the Welsh Grape Juice Company, of Vineland, N. J. It is made from the choicest Concord grapes, which lead in medicinal and dietetic properties, and which arrive at greatest maturity in this part of New Jersey. These are pressed and sterilized by improved apparatus, delicately strained and clarified and, after being properly heated in porcelain, the juice, retaining to perfection the delicate grape aroma, is hermetically sealed in new glass bottles. Throughout the process is most cleanly, and when bottled the beautiful, palatable, healthful juice not only retains the rich color, fine flavor and medicinal properties that are the natural product of the Concord grape, but it is untainted by the least particle of alcohol.

The physiological effect of grape juice is significant. Taken in proper quantities and at proper intervals it increases nutrition, promotes secretion and excretion, improves the

action of the liver, kidneys and bowels, and adds to the general health. It is easily digested and may be taken when nothing else can be taken or retained upon the stomach. Its results are specially gratifying in fevers and other wasting ailments and can be used to great advantage during convalescence of all protracted and debilitating diseases.

In short, there are but few chronic or acute diseases in which this pure life of the grape cannot be prescribed to advantage. It has our most hearty and unreserved indorsement.

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### NUTRIMENT IN FOOD.

The consumption of mutton is similar to that of beef, and it is about equal in nutritive value to beef. Lamb is about the same.

Smoked ham is one of the most wholesome forms of meat. Ham is more digestible when boiled and served sliced thin and cold.

Veal is less nutritive, possesses more waste and less fat than beef. In Germany it is considered as excellent as beef and is prescribed for invalids, but in England and America it is thought harmful for persons with weak digestions.

Beef is the most nutritious of all animal foods and can be eaten longer continuously than any other kind of meat, resembling rice and bread in this respect. Fresh beef is almost completely digested, more completely than milk is by an adult.

Poultry is good flesh-forming food. Fish is like poultry in its large amount of water and small supply of fat. There is nothing to show that fish is brain food except that the small amount of fat makes it a suitable diet for persons of sedentary habits.

## Prescriptions.

### CORYZA.

R—Uranium acetate ..... gr. 5-6—iss.  
Finely powdered roasted  
coffee ..... dr. iiss.

M. Sig.: A pinch to be snuffed in  
the nostril two or three times a day.  
—La Medecine Moderne.

### GLEET.

In cases of post-gonorrheal, gleet  
discharges Dr. Neilson advises the  
following injection for daily use:

R—Mercuric chloride ..... 1-10 gr.  
Zinc sulphate ..... 12 grs.  
Boric acid ..... 1 dr.  
Distilled water ..... 6 fld. oz.—M.  
—Philadelphia Polyclinic.

### NEPHRITIS.

Poliakoff reports good results  
from:

R—Lithii bromid ..... gr. xv—xxx.  
Sodii bicarb. .... dr. j.  
Essent menthae. .... gtt. ij.  
Aq. destillat. .... oz. viiss.

M. Sig.: Three or four tablespoon-  
fuls daily.

—Giornale internaz. della Scienze Med.

### BOAS' POWDERS.

These powders are valuable in re-  
lieving the attacks of pain in gas-  
tric ulcers:

R—Exalgin ..... 3.00.  
Extract of belladonna ..... 0.30.  
Phosphate of codeine ..... 0.30.  
Sugar of milk ..... 5.00.

Misce. Sig.: Make ten powders.  
Take one as the attack comes on.  
Pure codeine or the hydrochlorate  
can be substituted for the phosphate.

—Journ. American Med. Asso.

### ASTHMA IN CHILDREN.

The following mixture may be  
given every quarter hour in the dose  
of a dessertspoonful:

R—Tinc. of belladonna, 5 to 10 drops.  
Tinc. of grindelia, 10 to 20 drops.  
Tinc. of lobelia, 20 to 30 drops.  
Ether ..... 2 to 4 drs.  
Syrup of orange ..... 4 drs.  
Water ..... 3 oz.

When the attack is very persist-  
ent moderate doses of autipyrin  
sometimes give relief.

Should acute bronchitis or pul-  
monary congestion supervene the  
chest should be enveloped in a mus-  
tard plaster, the fumigations or in-  
halations already named be ordered  
and a teaspoonful of the following  
given every 15 minutes:

R—Tinc. of belladonna, 5 to 10 drops.  
Syrup of ipecac ..... 2 drs.  
Syrup of orange ..... 1 oz.  
Codeine ..... 2 grs.  
Ether ..... 1 dr.  
Water of orange flowers ..... 2 oz.

Between the attacks the following  
will prove useful:

R—Potassium iodide ..... 1 to 2 drs.  
Syrup of Tolu ..... 6 oz.  
Syrup of orange ..... 6 oz.

Sig.: A teaspoonful after meals.

—Pediatrics.

### DYSPEPSIA.

In acid fermentative dyspepsia of  
children Dr. J. Madison Taylor  
recommends:

R—Sodium bicarbonate ..... 1 dr.  
Tincture of gentian ..... 1 oz.  
Cinnamon water, sufficient  
to make ..... 4 oz.

M. Sig.: Give one teaspoonful  
when necessary.

In cases of irregularity of the  
bowels, whether it be sluggishness of  
the movements or a tendency to oc-  
casional diarrhea, sodium phosphate  
may be added to this with great ad-  
vantage.

Philadelphia Polyclinic.

## For Physicians' Wives

### BEREAVED.

Reply to a protest on rain.

The rain may fall, the sun may shine,  
It seems the same, a lone, sad time;  
Drear, gloomy hours, with scarce one ray  
Of light to drive the dark away.

Despair so whispers, has its say.  
Hope in the heart refuse to stay;  
No need to drive the rain away  
'Tis just as dark on a sunny day.

The rain, the rain, the pattering rain,  
Don't fill the heart with aching pain;  
But brightens up this world of hours,  
And calls to life most beauteous flowers.

Then let it rain, it suits me well;  
The earth but has it weeping spell;  
It only makes it seem more bright  
When again we have the glad sunlight.  
—Mrs. Joseph R. Clausen.

### X RAYS AND LACING.

Queen Amelie, of Portugal, who, as everyone knows, is a qualified doctor, has perceived that X rays might be utilized to demonstrate the evils of tight lacing. She has taken photographs of some of the ladies of her court, and has been holding forth energetically concerning the contrast between the feminine form divine and the form as it appears when "improved" by the modern corset. One is sorry to hear that her majesty's well-meant efforts have not met with much encouragement from her entourage. Some of the fair rebels have even gone so far as to flatly refuse to be photographed. If the Queen perseveres, however, she will doubtless be able to regulate the size of waists, just as the Princess of Wales has killed many an injudicious mode by refusing to adopt it. To make a thing "bad form" is far more effectual than to seek to crush it by decrees

or discredit by arguments. In England the custom of "squeezing" received its death blow when the Duchess of York was married, and the curious world was informed that the waist of her wedding gown measured 26 inches. Her figure is beautifully proportioned, a fact which no one can look at her and deny.—N. Y. Recorder.

### COLOR IN VARIETY.

White dispels the blues.

Yellow and scarlet invite hilarity, even a touch of diablerie.

Gray is conducive to calmness.

Pink makes one feel young, pleasant and amiable.

The girl in pale blue is sentimental, with just a touch of vivacity.

There is more truth than poetry in all this. Try it, and you will see. It is told of Wagner that in all his compositions he was assisted by various-hued draperies. Invariably, to induce the love motive the lightest colors surrounded him, while for storm and bloodshed he relied on vivid reds and decided purples; for grief, dull grays and rigorous browns sustained him.

\* \* \*

Who ever saw a dejected girl in white? Particularly nowadays, when white means yards of lace and dainty plaitings, all fluff and floating ribbons. Her blues would vanish while she fastened the belt of her skirt. She couldn't help looking out with smiling eyes from under the wide brim of her soft, tulle hat. Presumably, in the first place, no woman who was not nat-

urally sunny tempered, no woman whose smile was not close behind her tears, would ever take to pure diaphanous white. Diaphanous is written advisedly, for gauze and their fabrics encourage good spirits and cheerfulness. Stiffened piques and starched linens, on the contrary, mean added self-respect and dignity. A certain woman who boasted a small fortune and a long line of ancestors, used to aver that shabby though her dress might be, worn and frayed at sleeves and hem, she could hold her head high and walk in queenly fashion, if only she had money enough to pay her laundry bill and indulge in the consciousness of a clean, starched undershirt that rustled as she moved.

\* \* \*

If you are bored and tired don't, as you value your disposition, clothe yourself in black or any other dark color. Get out your daintiest pink gown or select your most brilliant scarlet one. Feast your eyes on it, drink in its wealth of color, and acknowledge that already you feel better. Before you know it you will be joking and laughing with the friend whom you found dull a half an hour before.

When you are restless, when you are cynical, help yourself to repose back to delicious sentimentality by means of your wardrobe. You can, all women can. Balzac, who knew women better than any man who ever studied them, says repeatedly in his "Comedie Humaine" that a badly-dressed woman is never agreeable and good-humored. He says it variously, but he says it positively.—Exchange.

#### TO PRESERVE POLISHED FLOORS.

No rollers should be used on furniture over polished floors. Each part which touches the wood should be fitted with a piece of thick felt securely glued on. This protects the floor and allows easy movement.

These floors require only the sweeping with a hair brush and the

wiping with a dust mop or soft cloth.

Wax, alone, gives the highest polish, but is always slippery. It should be rubbed on evenly. Any little bits remaining will show as black specks after the polishing. The brush should be used across the grain at first, afterward with the grain. Wax and turpentine furnish a less degree of polish, which is, therefore, less slippery, while the addition of paraffine oil lessens it still more. If it be desired to keep the floor very light the oil mixture should not be used, for oil always darkens wood.

\* \* \*

Water is the worst thing that can be applied to any waxed surface. A damp cloth may be used. All spatters or drops of any liquid should be wiped up immediately. When spots come—as come they will—rub them hard with a piece of thick felt under the foot, or with a flannel moistened in turpentine.

Remember to keep the surface well polished, then dirt cannot stick and substances spilled cannot reach the wood and make spots. With all these precautions the floors which are constantly used will need an entire renovation occasionally. They should then be rubbed all over with steel wool till every spot is scraped out. If the wood has grown dark it may be whitened by a wash of oxalic acid. Rub perfectly smooth and clean before applying the wax or other encaustic.

\* \* \*

A good encaustic which will clean and polish at the same time may be made from wax, sal soda and any good soap. The wax and soap should be shaved and dissolved in boiling water. Stir frequently and add the soda. Put the mixture in something which may be closely covered and stir constantly until cool. This may be applied to floors, furniture, tiles, marbles, bricks, etc.. It will remove ink from polished surfaces. The French use white wax on white marbles, but this is not absolutely necessary.—Exchange.